

MOFFET-WELL:

O R,

A Topographico-Spagyricall description of the Mineral Wells,
at *Moffet* in *Annandale* of
Scotland.

Translated, and much enlarged, by the
Author
MATTHEW MACKAILE,
Chyrurgo-Medicine.

Also, The

OYLY-WELL:

O R,

A Topographico-Spagyricall description of
the Oyly-well, at *St. Catharines* Chappel
in the Paroch of *Libberton*.

To these is subjoyned,

A CHARACTER of *Mr. Culpeper* and his
Writings; by the same Author.

Felix qui potuit rerum cognoscere causas.

Edinburgh, Printed for *Robert Brown*, and are to be
sold at his Shop, at the Sign of the *Sun*, on
the north-side of the *Street*, over against
the *Cross*, 1664.

SMOKE-T-WEIL

A Tobacco Pipe - (Pencil)
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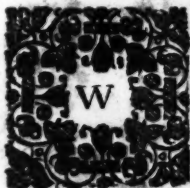
T O

THE RIGHT HONOURABLE,
AND TRULY NOBLE,
WILLIAM

Earl of

MORTON,

Lord *Dalkeith*, one of the Members of
His *Majesties* Honourable Priuy
Council in *Scotland*.

Right Honourable,

Hen I do usurpe the me-
mory of your Lordships
most undeserved courtesie,
in admitting me into the
number of your Lordships
favourites, by appointing
me to attend the Sherifsdome of *Orkney*, as
a publick servant unto your Lordship and

A 2

the

the Gentlemen there; I am perswaded to believe, that since your Lordship hath condescended to own me in so considerable a manner already, I shall also be patronized in publishing those following discourses, (although they contain many fragile conceptions, and such things as will avert all popular *Euges* in this age, wherein Mr. *Culpeper* hath been, by the ignorant, more highly esteemed than both *Hypoocrates* and *Galen*) and be indemnified for demanding the same; your Lordship being the fittest person upon whom I could pitch for patronizing of them, (the first being a Translation and enlargement of the description of *Moffet* Well, which I performed since I was dignified to do service to your Lordship) but more especially, of a description of a Well, which was so highly esteemed of by His Majesty, King *James* the sixth of blessed memory; and of a reprehensory discourse, of most unchristian and treasonable expressions, which were penned by Mr. *Culpeper* in the hour of darkness and rebellion: because descended of the most ancient and noble Family of the
Douglasse,

Douglafs, (which hath ever been most fertile of magnanimous souls, whose signal and singular loyalty and courage, did erect them unto the highest pitch of honour, both at home and abroad, throughout all ages, since ever they were known by that name; so that *Fame* doth glory in having that name listed in her *Legend*) and of your Lordships most exact corresponding the most sincere loyalty of your immediate Ancestors; at this time, when the demolished *MONARCHIE* of *Great Britain* hath been a re-edifying. I will, in the next place, add this most cordial wish, that it would please the Almighty to preserve your Lordship, in those your younger years, and to prolong your dayes to the utmost extent of possibility; and that all the Honour and noble Enduements of your Predecessors, being multiplied upon your Lordship, your *Fame* may never know another season than a *spring*. In the mean time, all that I beg, is your Lordships favourable acceptance of this poor offering, from him who is most zealously ambitious, with all the circumstances of gra-

6 *The Epistle Dedicatory.*

tritude and possible observances, to make
good the Title of,

My Lord,

Kirkwall, Your Lordships most humble
Apr. 22. 1664. and unfeigned servant,

Matthew Mackaile.

T H E



The Author, his
A P O L O G Y
For the
TRANSLATION:

Courteous Reader,

THe multiplied regrades of some, and reiterated solicitations of others, who were desirous to understand those mysteries of Art and Nature, which we had wrapped up (as they conceived) in an inexplicable Idiom of a forraign Language (because of the deficiency of Dictionaries, as to the vocables of Art) have been the main, if not the only incitement which made us set about this Translation; which we have not performed superstitiously, translating all the Sentences thereof ad verbum; but so, as the meanest capacity might understand, that which was (possibly) more obscurely expressed in the Original: such as is that Sentence, Page 15. *Menstruum Rhabarbaro affusum, &c.* which a

The Author, his Apology

young Gentleman (being imployed by a Chyrurgian, equally versed in all Languages excepting his vernacular, to translate the Original into English) who was newly dignified to be a Master of Arts, translated thus, When Rubarbe toucheth a womans courses. Moreover, We have in several places made additions, which were furnished by our Δευτερα προνηματα, the Architect in rearing this new pile upon the old foundation. It being an opinion long ago proseminated amongst the Vulgars, That Translations present the life of their Text at as great a disadvantage of dissimilitude, as the back-side of Hangings exhibite the story inter-woven, (as I remember Dr. Carleton saith in his Epistle prefixed to his Translation of the Magnetick cure of Wounds) we are confident, that the too acute severity of some, who have not been hitherto deficient to infect the tender buds of our former intentions and actions for the bettering of others, With the virulent blasts of detraction (which proceed from the most corrosive Zone of envy) will afford no better entertainment unto these slender adumbrations, then it did unto their first draughts with Roman Oyl. But having attained unto a firm resolution of undervaluing the censures of such malevolent Criticks, we have been much allicited to communicate this Translation, (sending it forth ——— in dias luminis auras) by some, whose innate candor did not only afford, unto the Original, such approbation as did obstetricat it into the world ;

but

but also did nutricat it with sincere acceptation. This Infant therefore having attained unto more years and a bigger stature, we have given it a new sute of ordinary Scottish Livery, that it might not (being in a better equipage) decline the doing of service to the meanest of our Countrymen who should require the same: and this is the unfeigned desire of,

Thy Servant,

M. M.

T O

To his worthy and much honoured friend Patrick Hepburn, the most skilfull Apothecary, at Edinburgh.

Worthy Sir,



THe first seeds of *Spagyricall Pharmacie*, being sown by you into the field of my understanding, I do most humbly consecrate unto you (who have been practising *Chymistry* these sixty years) these their first fruits (which are most justly yours) as a perpetual testimony of my due gratitude and observance ; desiring most earnestly, that you would cheerfully accept this little offering , and permit your reverend Name to be thus inserted at it's beginning ; that, as an *Amulet*, it may banish *envy* , and appease *malice*. In the mean time , I shall pray, that the *Almighty* would be pleased to prolong your life for the good of your Relations , and of His own people ; and that at length, when you shall be full of dayes, He would crown you with *glory* and *immortality*. Fare-well.

Edinburgh,
Feb. 4. 1659.

Your most observant friend
and servant,
Matthew Mackaile.

TO



TO THE
READER.

Courteous Reader,



*Seeing these delectable things which follow, were learned only from the operations of art and nature, I have permitted them to take their flight from the dungeon of silence, into the luminous air of publick view; that (if it be possible) they may prove profitable unto others; at least, that they may excite such as are more experimented in this art, to essay an inquiry into the natures of the rest of the mineral Wells, with which our Country is abundantly furnished, and much adorned; they giving no small ground to suspect, that the earth is replenished with variety of minerals. And seeing the earnest desire I have after promoting the knowledge of truth, and the good of others, did ob-
stetricat these first labours into the world, I do earnestly intreat for a cheerfull acceptance of them, and that you would swaddle them in a favourable construction, and not expose them to the brutal sharpness of mockery or detraction: For they contain*

contain the rudiments of that nature-imitating-art Chymic, being only taken from the resolutory part, which is subservient to medicine; and make no mention of the Transmutation of Mettals, Portable Gold, and the Philosophers Stone, &c. Concerning which many things which are false, ridiculous and inconsistent with reason, have been spoken by some, and with which others did, and yet do, egregiously deceive the world: For which some have been deservedly forced to finish their days upon Gibbets. And this is the reason for which, Artists are by some called deceivers, and by others fools; as appeareth in Florentius Schoonhovens his Emblem concerning Chymists, (to which he subjoyneth this verse;

Dum certis incerta sequor, rem prodigus omnem
Converti in fumos & miseros cineres.

That is,

Whil'st that by things most sure, such as uncertain
I seek, by (moak and ashes I'm deceived far) [are

And in its commentary in these words, Alchymie, that amiable madness (whose sure companion is poverty and labour in vain) familiar to the curious, its vanity doth hence appear, ev'n in promising such things as nature can neither suffer nor attain unto, whilst it laboureth to over-turn the natures of things, by making a Philosophers Stone (as they call it) which will forth-with change all bodies in-

to Gold or Silver, at their touching it.-----The miserable Alchemist, who hath spent all his dayes in trying of experiments, when all that he had is spent, and converted into smoak and ashes, in his old age he becometh raged, covetous, alwayes favouring of Sulphur, and Paralytick, through his continual handling of Mercury, getting nothing but painfull and sorrowfull sighs; because his labours hath produced nothing but errour, loss and shame. But I hope, that it shall afterwards clearly appear to all (Momus and Zoilus only excepted) how wrongously these things are asserted concerning all Alchemists. Lastly, seeing we do not profess our selves to live without the confines of humane fallibility, we do humbly intreat all such, as know any things of greater worth, and more consonant to truth, than what we have set down hereafter (for, two eyes or more, will see better then one) that they would upon the same account, communicat them unto others. If thus our labours shall work upon such, we shall (possibly) be thereby excited to set about some other task, no less profitable to others. For we believe, that all good endeavours are praise-worthy, although their events be uncertain. Fare-well.

*Mome favere decet, prodesse volentibus : ergo
Carpere vel noli nostra, vel ede tua.*

That is,

*Mome it doth become thee well,
To favour such as would do well :
Then either give to others yours,
Or cease to carp and censure ours.*

Ad Lectores.

*Omnibus hæc animæ conamina prima modestæ.
Grata superveniant, quos nova scire juvat.*

That is,

I. W.

*These first essays which the modest mind hath
Accepted be, by (such as novels cover. (offer.*

To



*To his most accomplished Friend
and worthy Comrade, Mr.
Matthew Mackaile, upon his
elaborat description of the Mos-
fet and St. Catharines Wells.*

I Ingenious soul, who'll not admire thy skill?
Who thus anatomisest with a quill,
Dame natures hidden cabin, and displayes
Treasures, beyond the conquest of the bayes.
Such sovereign wealth, as miracles performs;
Restoring death to life, and calming storms,
Rais'd by intemperance: Thy water-brooks
Refresh the panting heart and fainting looks
Of anxious valetudinaries, thou
Constrain'st the Peasant rude to make a vow,
And from earths hidden cavern, then dost bring
Him health and strength to pay his vow and sing.
Thy Lynx-ey'd intellect receives no stop
From intermedes; but thou, that well stor'd-shop:
Survey can'st in a minut; and from thence,
Bring sovereign Antidotes with small expence:

And

And from things despicable, like the Bee,
 Sweet remedies prepare ; strange industry !
 And yet more strange the bounty of thine hand,
 To strow such treasures up and down our land ;
 And in such form, that every vulgar Eye,
 From hence may learn profound Philosophy :
 Whereas their sole Monopoly were able,
 To bring thee fame and wealth inestimable.
 What inspiration moved thee to make
 Poor mortals of their Makers skill partake ?
 I't not enough that they His foot-stool tread ?
 But must they also know how He it made ?
 Sure, *providence* reserv'd hath these displays,
 To give them life in these our halcyon dayes ;
 And hath designed thee likewise to be
 Her message-bearer to posterity.
 O may thy virtuous soul receive the fruit !
 Of those the labours, and of thy wit acute !
 And may each barking Momus blush to see
 The lustre of thy ingenuity,
 That so thy nimble Pen may never fail,
 Till myriads of pens thy loss bewail.

In amoris testimonium sic conatus est.

I. A.

T H E



THE PREFACE.



That the following description of Moffet-wells may be the better understood, we thought it necessary to premise some things concerning the elements of Chymie.

I. There are six simple (though Physically, of the four elements composed) bodies, whereof every Animal, Vegetable and Mineral body is composed, and into which they are resolved, by distillation and calcination; and they are these. 1. Earth. 2. Phlegmie, or the insipide Liquor. 3. Mercury, or the acide Spirit. 4. Sulphur, or the combustibile Liquor. 5. Volatile-salt, which cannot endure the fire, but flyeth from it. 6. Fixed-salt, which resisteth the strongest of Vulcan's

fury (his vitrifying heat only excepted) without any damage. The last four only are called Elements (by way of excellency above the rest) because they only are endued with medicinal virtues.

2. *The foresaid bodies are called simple; because they cannot be resolved into heterogeneous parts, by distillation, without the adding of a heterogeneous body.*

3. *Mercury, Sulphur, Salt-volatile and Fixed-salt, are called the elements of all the foresaid Bodies, because they are composed of them; but not because all of them can be extracted out of any body, and made obvious to the senses: for, there can but a little Volatile-salt be extracted out of some things, and very little Fixed-salt out of others. In the Original we asserted, that there can no Volatile-salt be extracted out of man's Blood: but having since attained a more exact manner of destilling the blood of Animals, and separated some Volatile-salt (which attacheth it self to the sides of the recipient, like Spiders webs) from them, we do retract that assertion; having in the Epistle to the Reader professed, that we did not live, without the confines of humane fallibility.*

But

But it is ordinarily, in greater abundance, extracted out of the hornes, feathers, &c. of living Creatures. Likewise, there can be but very little Fixed-salt extracted out of these, unless they be taken in great quantities, and put to a tryal: for, where the Volatile-salt doth abound, there is little of the Fixed-salt, and contrariwise.

4. The Earth (which they call the dead head) is, as it were, the subject of the fore-said Elements, and is of no use or virtue, when the Elements are separated from it.

5. Phlegme is only the carrier of nourishment to the Elements. As for example, water is only the carrier of that aliment, which Vegetables and Minerals do suck out of the Earth for their nutrition; and it is the carrier also of that nourishment, which living Creatures do extract out of the parts of Vegetables and Minerals, as the Phlegme of Wine is only the carrier (or chariot) of those active Spirits, which do exhilarate the heart of man.

6. It is not only certain, from the Chymical resolution of bodies, that the fore-mentioned Elements have a real existence in nature, but it is also naturally known to all

Cooks; for in their dressing of Meats, they labour to supply the penury of Sulphur, Mercury and Salt, by adding Butter, Vinegar and Common-salt, in making of Sauces.

7. In the resolution of any natural Body (that is in a natural estate) by destilling, the Phlegme exstilleth first; 2. the Mercury; 3. Sulphur; 4. Salt-volatile; and, 5. the Fixed-salt remaineth in the earthly part, from which it is to be extracted by calcination, solution, filtration and coagulation. Neither doth this falsifie what hath been said, that in the destilling of fermented Wine (that is, which hath stood one, two, or more dayes, after its being pressed out of the Grapes) the sulphureous Spirit exstilleth before the rest: for this cometh to pass, because the sulphureous Spirit (which is Volatile of it self) is separated from the rest of the Elements by fermentation, and is in an unnatural estate. Neither doth any more of this Spirit exstill, then is separated from the Salt, &c. by fermentation. And in the destilling of new Wine, the sulphureous Spirit beginneth to exstill, before that the Phlegme is altogether separated; because of the suddain fermentation of the Wine, which causeth the
sulphureous

sulphureous and volatile spirit reject that bond and tie, under which it was formerly: For all bodies, when they are in their natural condition, are alwaies resolved by art, after one and the same manner: that is to say, their elements are still separated in the same order. So that it is probable, that in the destilling of not-fermented Wine, the Vinegar or mercurial-part (which is the true spirit of the Wine: For spirit is first, and most properly, attributed to Mercury, and in the next place only to Sulphur) would exstill before the sulphureous spirit, if the fermentation of Wine could be impeded whil'st it is a destilling.

You would here take notice of the reason, why the simple spirit of Wine, doth pass sooner and more facilely through the stomach, and occasion less unpleasant eruētations from it, than when it is impregnat with the sulphureous spirits of Cinnamon, or other Spices. We conceive that this cometh to pass, because the spirit of Wine is a most homogeneous body, which debateth less with the natural heat and flatulent vapors, which are contained in the stomach, than when it is associat to the sulphureous spirits of Spices: for the more sorts

there be of them, there is the greater confusion and debate amongst them, and betwixt them and the forementioned flatulent vapors, when they begin to be altered and concocted by the natural heat; and therefore the eruptions occasioned by this strife, cannot but be more frequent and noysom to the pallas, than such as proceed from a less confused and violent debate.

8. The Mercury, or acide Spirit, is the ferment of the forementioned bodies.

9. Ferment in general, is either natural or artificial; and each of these, is either simple or composed.

1. The natural and simple ferment, is the proper mercury of any simple body (as of Wine, Milk, &c.) which being incited by external heat, doth produce a swelling of the body (whose it is) and a separation of its heterogeneous parts or elements, as the mercury or vinegar of Wine causeth it to swell, and produceth a separation of the sulphur from it self; as also of the salt (contained in the tartar, which doth attach it self to the sides of the vessel) from both.

2. The natural and composed ferment, is made up of the proper mercuries of several
simple

simple bodies (as of Cinnamon, Opium, &c. whereof Treacle is composed) and produceth a swelling of it, and a conjunction of the several elements and qualities (of the many different bodies) as it were, into one new nature; and that by fermentation, concerning which you shall have more hereafter.

Here you may observe, that a simple body, which hath been fermented, by its simple and proper mercury, may be thus also, as it were, fermented. As, well fermented Wine, being put into a glass (hermetically sealed, or well stopped with a Cork) and exposed to the Sun his beams, in the Canicular-dayes, its mercury or fixed spirit, will alter the sulphureous and volatile spirit, and change it into its proper nature, by fixing it; and the sulphureous and volatile spirit, will in some measure volatilise the fixed spirit: for Vinegar thus prepared, is the best and strongest. And hence it appeareth, that the spirit which doth first exstill, in the abstraction of such Vinegar from Mettals, which have been dissolved by it (and which is commonly called the burning spirit of the mettall, and by Angelus Sala in his seventh Aphorisme of the first Sect. a part of the Vinegar conver-

ed into a burning spirit, like to the spirit of Wine, and the very spirit of Vinegar) is not so much the spirit of Vinegar, as either a part of the sulphureous and volatile spirit of the Wine, which revivifieth, as it were, by defermentation (if we may thus speak) for it was fixed by the fixed spirit of Vinegar, and is now forsaken, when it beginneth to operate upon the mettall which it dissolveth; or that part of the sulphureous spirit, which the mercurial had not fixed compleatly. The verity of this is proven by another operation like unto it, viz. in the destilling of the Butter of Antimony out of equal parts of Antimony: and Corrosive-sublimed-Mercury, the salinous spirit of the sublimat, which had before corroded, and united to themselves the Mercury, when they are commoved by a new heat, they begin to corrode the Antimony, and do forsake the Mercury, which they did formerly corrode: for when the fire is augmented, the revived Mercury exstilleth towards the end of the destillation. Yea, the Butter of Antimony, is nothing else but the salts of the sublimat, by corrosion impregnat with the Reguleal part of Antimony. For we did convert the Emetick powder

powder (which is made of the Butter of Antimony) into the Regulus of Antimony; and in this operation we perceived no sign of the revivifying of any parts of the Mercury, although it was done by the great violence of fire.

3. The artificial and simple ferment, is the proper and natural ferment of any simple body, which produceth a fermentation, in any simple or composed body, to which it is artificially applied. As when the juyce of a Lemon, Wine, or the proper Mercury of the stomach of a beast do produce the fermentation of Milk.

4. The artificial and composed ferment, is a ferment made of many others, as the common Earning (which is made of the stomach of a beast, &c.) by which Milk is ordinarily fermented, or curded.

Here observe, 1. that the natural ferment doth sometimes produce a more exact fermentation, than the artificial. As when the natural ferment of Milk doth produce a more exact separation of the sulphur from the rest (when it causeth it pass to the superior part in the Cream, although that separation must be afterwards perfected by motion, in reducing it to Butter) than the artificial ferment, whether

ther simple (as the juyce of a Lemmon) or composed (as the common Earning or Runnet) which do not so exactly separate the Butter from the earthy part, &c. of which the Cheese is composed. for both the Cheese and the Whey are most capable of further fermentation, whereby their heterogeneal parts will be exactly separated from each other. 2. It is the Mercury, which is excited by external heat, that produceth the fermentation of a body, as doth appear in Milk, which being sufficiently fermented (that is, whose sulphur, &c. are sufficiently separated from each other) contracteth a sharp and mercurial taste which is gradually augmented, according to the different hours and dayes of its fermentation, as is known to every Rustick, that maketh Butter. Likewise Ale (which is sweet before that it be fermented) doth contract the very like taste (which doth reside into the Mercury, excited by external heat, and permeating all the liquor, and fixing some of the sulphureous parts; for a great external cold will impede the fermentation or working of Ale) when it is fermented. To these you may add, that the Bilious humour contained in the body of a living creature, is in two respects,

as it were, a ferment. 1. In respect of the Chyle, it is a natural and simple ferment (for it is generated of the natural and proper ferments of meat and drink) which produceth a separation of it self from the blood, Melancholick humour and Phlegme, and of these from each other, by fermentation. And in this resolution of Chyle, Blood answereth to Sulphur, Choler or the bilious humour to Mercury, Urine (though impregnated with some Volatile and Fixed-salts) to Phlegme, and Melancholy to the Fixed-salt contained in the earthy part. 2. In respect of the whole body: for it is commonly (yet deservedly) called a natural Clyster, which doth irritate the expultrix faculty of the Intestines (into which it daily floweth, out of its natural receptacle, the Gall) for the purging forth, and separation of, the excrements.

From the premisses, you may collect the manner how some purgatives do open the belly. For when purgatives are put into the stomach (as into a Retort which hath a stopper arising from its upper part, serving for the re-affusion of that liquor, which did once exstill by the other, that it may be re-distilled: For the Wezand or Oesophage answereth to that

that stroup in the Retort) they are altered by its heat, and by the heat of the circum-jacent parts, and their proper Mercuries, which do exstill by the nether orifice of the stomach, called the Pylorus which answereth to the common stroup of the Retort) do produce a commotion and fermentation of the humours in the Intestines, and thereafter (in the progress of this destillation-like operation) the Sulphur and Volatile-salt being commoved and exstilled, they do (by a certain occult quality, which is only known to God the Creator, and to which the creatures of this All-knowing-God must have their recourse, seeing that we know only in part) excite and irritate the expultrix faculty to expell, and when the strength of the purging Medicine, is proportionat to the strength of the body, the bad humours only (which are onerous and most hurtfull to nature) are purged forth. For then nature retaineth the good and usefull humours, although they be commoved with the rest. But if the Medicine be in its strength disproportionat to the constitution and strength of the body, then the good, as well as the bad, are promiscuously purged forth, and that painfully: Because that such things

things only as should, are not excerned, as said Hippoc. lib. 1. Aphor. 2. I said, 1. that the occult quality of the Sulphur and Volatile-salt, did irritate the expultrix faculty: the first Liquor only wherein Rubarb hath been infused, doth purge by irritating the expultrix faculty; because the Sulphur and Volatile-salt are dissolved in it. 2. That this irritation of the expultrix faculty, ought to be ascribed unto an occult quality (seeing the Sulphur and Volatile-salt of Lamer, are neither purgative nor vomitive) because the Sulphur and Volatile-salt of Rubarb are simple Bodies, which cannot be (by Art) resolved into heterogeneous parts, that the causes of these effects which they produce, might be known.

But when a Medicine made of Antimony, or such-like, is exhibited, vomiting precedeth purging by stool; because the abounding humors in the Stomach, which are volatile, (not that they contain Volatile-salt, but only because bilious for the most part, which do occasion a nauseating, by their spontaneous tending upwards, as a bird in flying) are suddenly commoved by the Sulphur, &c. of the Antimony, &c. And not finding a facile egress

egress by the neather Orifice, they are, by nature, forced upwards.

I shall add this assertion to what hath been said, and endeavour to render it's verity indubitable.

The knowledge of fermentation is the great key of Nature, which the Former of all things, hath put into the hands of man, for the unlocking of her secret Cabins, that he might the more clearly behold her greatest mysteries.

The truth of this will become unquestionable, if you will but consider, 1. that thereby he is greatly enabled, to resolve the Bodies of Animals and Vegetables: for such are best resolved, when fermentation is premitted. As when fermented Barley affoordeth a most subtle, active, and ardent sulphareous Spirit, which it would exhibit under a grosser and oleaginous form, if it should be destilled, without a previous fermentation. And Milk is better resolved into Wig, (which, by destillation, may be converted into an insipid Water and a Mercurial Spirit) Butter and Cards by fermentation in a Churn, then into unpleasant water, &c. by destillation: because of the empyreuma accompanying them.

2. The

2. The knowledge of fermentation discovereth the reason, why all meats, (whether they be made of Animals or Vegetables) which are fermented, are more easily digested and do nourish better, than such as are not fermented. As for example, fermented Bread (i. e. sour-ed) is more easily digested and yieldeth better nourishment, than any other doth; because it's sulphureous part is subtilized and loosed by fermentation, which maketh it to be the more easily and quickly separated from the Bread, whilst it is a concocting in the Stomach. And (for the same reason) the fleshes of all sorts of Animals are fittest for being eaten, the second or third day after their maturation, as the practice of all doth prove. Moreover, do we not delay the drinking of Wine, Sider, Ale, Beer, &c. untill they be fermented? for then they do nourish most, and are of a most facile digestion, because their alimentary parts (especially the Sulphur) are, by fermentation, loosed from the terrestrial and gross subject, wherein they did formerly reside, and are subtilized and elevated to a more subtile and spirituous consistence, which rendereth them more plyable to the operation of the natural heat; and are not these
subtilized

subtilized alimentary parts, the thing which doth inebriat a weak Brain, for a little time held over the Vessel wherein Wine, or Ale, &c. are fermenting. It is, certainly, undeniable; because, if Wine or Ale were put into a Still (artificially adjusted) when the fermentation begins to appear, you should (without the assistance of Vulcan) at the end, find some of those subtile Spirits condensed into an ardent Liquor in the receiver.

In the Medico-Philosophical discourses of Dr. Thomas Willes, (a Physician at Oxford, the perfection of whose Learning, my quill is not able to describe) you will find many things concerning fermentation which were never heard of before, and which are (for the most part) consonant to what is here; all which were but lately published in Latine and came to our hands, two moneths after these, and what followeth, were written. And in them is the nature of fermentation more exactly described then ever.

10. The differences of Colours do proceed from the different degrees of the concoction of the Sulphur, as the colours of Red-roses, Gillofers, Violets, &c. do (without doubt) proceed from the Sulphur which is concocted,

concocted, untill it contract a red, blew, or the like colour, whereof it was destitute, when impregnat only with viridity in the juyces which nourished the Flowers. For, when the Salt of a Vegetable, containing perfectly concocted Sulphur, (as of Worm-wood, Finkle, the Vine, &c.) is mixed with the tinctures of those Flowers, they do presently contract a green colour; because the Salt produceth an indigestion and recrudescence of the Sulphur. For, the first colour of any Vegetable is green, which proceedeth from the crudity and imperfect digestion of the Sulphur, which becometh red or blew, &c. when it is further concocted by nature, as it happeneth in the fore-mentioned Flowers, and in the leaves of many Vegetables, as of Trees, &c. which become yellow, &c. when they attain unto maturity. I said, 1. The salt of a Vegetable; because no Minerall-salt (as Nitre, Amomiack, &c.) doth render the Vegetable Sulphur indigested. 2. The Salt of a Vegetable, which containeth perfectly concocted Sulphur; because the Salt of Scurvy-grass (which is a Vegetable, not containing perfectly concocted Sulphur) or such like, do not render the foresaid Sulphur indigested.

You may observe by the way, that the Spirits of Nitre, Common-salt, Vitriol and Brimstone, do perfect the foresaid tinctures which were made green, by re-investing them with their former colours; although the same Spirit of Brimstone, ascending from it in smoak, when it is inflamed (for the foresaid Spirit of Brimstone is nothing else, but the smoak which ascendeth from inflamed Brimstone, and is afterwards condensed into a Liquor, as you shall hear) doth albifie a recent Red-Rose; and the Oyl of Tartar will invest it with greenness, if it be a little broken and infused in the Oyl. We acknowledge, that we have never, as yet, attained to the knowledge of the causes of these rare and wonderfull effects; especially seeing we are of opinion, that the fore-mentioned Liquors and all Salts are not hot, but cold, as shall appear hereafter.

We said before, That the differences of Colours do proceed from the different degrees of the concoction of the Sulphur; or from the alterations produced in the Sulphur, by the actions of corrosive bodies: the truth of which assertion we will further essay to demonstrat, by shewing (according to our own opinion) the manner how
Blood,

Blood, the different sorts of Bile and Melancholy, do acquire their different colours.

It is vulgarly asserted by Physicians, that excrementitious Bile is of four kinds, viz. 1. Bilis Vitellina, which is generat of yellow Bile. 2. Porracea, which taketh it's original from the Vitelline. 3. Æruginosa, proceeding from the Porraceous. 4. Glauca, which oweth it's original to the Æruginous; all which they affirm, Majori semper adustione generari, & plures caloris gradus acquirere. And concerning Melancholy they write thus; Dum Melancholia excrementitia præter naturam se habet, atra Bilis appellatur, quæ ferventissima est, & acerrima; & ex Melancholia naturali, Bile flava, sanguine, vel pituita salsa generatur.

We humbly decline the giving of our assent unto those opinions, though generally received by the ablest of Physicians; and will in the like manner offer our own, to which we will premit these two assertions:

1. Salt, and all bodies wherein it doth predomine, are cold and moist; as will afterward be proven by severall arguments.

2. Every Liquor is salt, acide or sharp (i. e. acris) because of the admission of Salt.

These things being premised, we are of opinion, that Blood containeth Sulphur, Salt, Spirit, &c. but more Spirit and Salt, or Salinous Spirit than Sulphur, when the Chyle is first converted into blood in the second concoction, because this Salinous Spirit is to serve for other uses, than the alimentering of any part: for, in the second concoction, it is the chief agent in producing the red colour of Blood, by it's action upon the Sulphur of the Chyle. Moreover, another part of it, by operating after another manner upon some other part of the Sulphur, produceth the yellow colour in Bile; which being generat, is sent to the Gall, that it's gradual emanation from thence, may (like a natural Clyster) irritat the expultrix faculty of the Intestines. Lastly, another portion of it, by altering a third portion of the Sulphur, produceth the blackish colour in the Melancholick humour, which Nature maketh retire to the Splen, that by it's crasser parts, it may alimenter the Parenchymatous substance thereof; and by it's more subtile and penetrating parts, it may promote the digestion of the Stomach, &c.

*The truth of these things will easily appear, so any who will be at the pains to observe
she*

the distillation of Honey, and the gradual alterations of the colours in the Liquors ex-
stillling; to which operation of Art, this of
Nature (viz. the generation of Blood, Bile
and Melancholy) may be well compared, be-
cause of the great resemblance which is be-
twixt them.

Moreover, none will question the truth of
our former assertion, if they will but consi-
der, that as of the juyce of Celledon (which
is of the colour of Bilis vitellina) the green
leaves of it are made, when it is further con-
cocted by nature, and thereby it's Sulphur
doth suffer a new alteration, by the action of
it's acide spirit upon it, whereby the Vitelline
(or yellow) colour in the juyce, is converted
into a green in the leaves. Likewise, the
Mercurial, Acide and fermentative part of
Bilis flava, by producing a new alteration up-
on the Sulphur, it deposeth it's first yellow
colour, and acquireth a Vitelline, which is a
darker yellow. As also, the green juyce of
a Leek is generat of the white juyce con-
tained in it's root, then it's greener leaves,
inclining to an Æruginous colour, likewise
it's whitish Flowers; So is the Porraceous
Bile generat of the Vitelline, the Ærugi-

nous of the Porraceous, the Glasteous of the Aëuginous, and the black or Atra Bilis of the Glasteous, and that without any aduſtion: For wood which is a little burned, becometh black Char-coal, and when it is fully burnt, it is converted into white aſhes. Should he not deſervedly be termed the moſt ridiculous of Naturaliſts, who would affirm, that the rediſh colour of Copper and yellow colour of Braſs, are, by aduſtion, converted into a green colour: & when they contract their green ruſt (which is commonly called Aëugo) by reaſon of the action of Vinegar upon them. Likewise, that the browniſh colour of the tincture of Nut-galls, is, by aduſtion, converted into a black colour, when Vitriol is mixed with it in making of Ink. This is ſo well known to Dyers, who (not by uſtion, but) by the admixture of Salinous Bodies, which do ſo operate upon the Sulphurs of others, that they change them from one colour into another, and ſo communicate divers colours unto one and the ſame Cloath; that if any of them did underſtand the actions of acide ſpirits upon ſulphureous Bodies, they would affirm that opinion, concerning the tranſmutation of colours by uſtion, to be *ca-chinno dignam*.

Here

Here we cannot but mention two considerable things, and offer our opinion concerning their causes. The one is concerning some Vegetables in general, and the other concerning the Houf-leek in particular.

As to the first, it is vulgarly known, that there are many Vegetables, (as the Houf-leek, Ivy, &c.) whose leaves do not fade or wither in the Harvest or Winter, but do remain as green and succulent then, as they were in the Summer. We conceive the cause of this perennial viridity is two-fold. 1. The imperfect concoction of their Sulphur, which (as you read a little before) perpetually accompanieth viridity in Vegetables, and is not capable of evaporation (as is the Sulphur of other Vegetables when they come to maturity; that is, when their seeds are ripe) so long as the Vegetative life is not extinguished; because of it's more strict union with their salts, which do detain it, and so prohibiteth it's exhalation. 2. The salt of those Herbs, being more nitrous than the salt of other Herbs, it is more firmly united to the Sulphur, (which in such, is still more resinous, as in the Fir-tree, &c.) and therefore doth more strongly detain, not only the Sulphur, but

also the aqueous humidity from evaporating.

As to the second, it is well known, that the Houf-leek, being suspended in the air with it's roots, doth not at first wither, as Wormwood, &c. but accress to a greater bigness, shooting forth new leaves and a stem. Before we offer our opinion concerning the reason of this, we will first acknowledge, that this accretion is not a proper growth, (as when the roots received aliment from the earth) because, as one or two leaves do pullulat from the top, as many at the root fade and become dry. These leaves therefore which do germinat from it's centre, do not spring forth because of any nourishment which the root doth receive from the ambient air; but, because the juyce of the root and former leaves doth sede into new leaves and a stem: for they do wither more then if they had been separated from one another, and dryed apart. But in progress of time, all the Herb fadeth and ceaseth to germinat any more, by reason of the totall exhalation of the vegetative Spirits and their aliment, by insensible transpiration. For the same reasons, the Onion, being preserved in a convenient place all the Winter, fadeth

fadeth but little, and being suspended in the air, in the Spring it shooteth forth new leaves, which are alimented by the remainders of the subtile Sulphur and Volatile-salt, which hath not been exhausted by evaporation.

From what hath been said, it appeareth impossible to make the magisterial Powders of all Vegetables, according to Dr. John Zuelfer (who did lately reform the Augustan Dispensatory by his Animadversions there-upon) his Prescript, in these words, contained in his Animadversions upon the composed and simple Balsams. Take (saith he) of the leaves of Rue or Red-Roses, most richly endued with their native colours, as much as you please; and boyl them in water, adding a sufficient quantity of the Oyl of Tartar: Add to the strained decoction water impregnat with Allom, and a thick matter like Pulse will precipitat or fall to the bottom; and if the Herb was green, it will be green, and if red, it will be red, as in Roses and such like Flowers: because the Oyl of Tartar is the salt of the Vine converted into an Oyl by deliquation: neither doth the dissolved Allom reduce the green tincture unto redness.

These

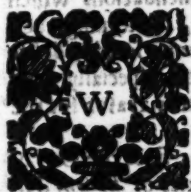
These are the things which we thought expedient to premise; and concerning which we must acknowledge, that there were but some of them at first intended, and the others occurring unto us as consequences from the rest, or worthy the inserting, have made this Preface of a bigness disproportionat to the following Book. Concerning which, some rigid Momus will possibly say, as Diogenes Laertius de vita Philosophi, lib. 5. affirmeth the Cynick Diogenes to have said, when he came to the City Myndus, and saw a little City and magnificent Ports, viz. Vini Myndii, Portus claudice, he Urbs vestra egrediatur: You Myndians, shut your gates, lest your Town run out by them. I answer, that it is sometimes most expedient, that it be so in some rustick Buildings (such as this is) especially where there are much Cornes and Hay to be carried home upon great Waggones. And therefore I do intreat the courteous Reader, not to censure me too much, seeing I have been necessitated to take in considerable store out of all the three Families of Animals, Vegetables and Minerals: And in confidence thereof, I will now set about the describing of the Wells.

Moffet.

MOFFET-WELL:

O R,

A Topographico-Spagyricall description of the Mineral Wells at *Moffet*, in *Annandale* of *Scotland*.



I thought it fitting to present you first with a *Topographical* delineation of the Wells, and to declare the manner of their becoming notour unto men; and then to subjoyn the *Spagyricall* description of them.

Six years ago, a valetudinary Rustick (as I was credibly informed) who was accustomed to make an anniversary iteration to the Wells at *Brampton*, as he was travelling through *Annandale*, he felt a smell like to that of *Brampton* wells, which made him walk contrary to the wind, following the smell brought thereby; and then upon the top of a little Rock (which nature hath scissured north-wards, and at the distance of one mile from *Moffet*) which was covered with mire and clay, he discovered two little Spring-wells, the nearer

and

and biggest whereof, is distant from the steep Rock (by whose side runneth a little Burn, into which the Water descendeth) about two or three foot, and the upper about six or seven. When experience had induced him to believe, that these Waters, were, in their qualities and operations, most like unto the Waters of *Brampton*, he recommended them to his friends and acquaintance, asserting that they were enriched with the like and many other virtues; So that within twelve moneths after, all sorts of sick persons did begin to resort unto them, and that from all places of the Country. The manifold commendations which I did every where hear uttered, concerning their virtues and effects, did beget in me a longing desire after a sight and tryal of them; especially seing I could never hear from any, of a reason for the vulgar opinion concerning them.

Two years are not yet expired, since the Earl of *Harsfield*, (to whose former titles of *honour*, His *Majesty*, since His happy restoration to the Government of this His ancient *Kingdom*, hath added the Title of *Annadale*, because of his Lordship and his Ancestors, their singular Loyalty) was pleased to command the dressing of the Wells; So that the entry into them is much bettered, and their diversity is made more perspicuous, by the removal of the clay, and the surrounding of them with a wall.

The stones of the upper Well are white and crystalline, and the neather hath blackish stones, not much unlike unto the *markasite* of *Antimony*. Thus

you

you have the *Topographical* description: Let us proceed unto the *Spagyricall*.

The limpid Waters of the Wells of *Moffet* are impregnated with the putide Sulphur of *Antimony*, *Nitre*, and natural *Salt-Amoniack*.

We shall, 1. illustrate this assertion; 2. Prove it's verity by the strength of reason and experiments; 3. We shall manifest the falshood of the common opinion; 4. answer some objections; and, 5, give some rules concerning the use of the Water.

And first of all we say, that water which is impregnated with *Nitre* doth extract the Sulphur of *Antimony*, whilst it passeth through an *Antimonial Mine*. 2. As this water which is impregnated with the Sulphur of *Antimony*, passeth through other veins of the *Earth*, it encountreth some *Salt-Amoniack* (or *Salt*, which by coagulation cometh of the Urines of the (almost) innumerable Beasts, which live in the circum-jacent Moors: for, the artificial *Salt-Amoniack* is made of the Urines of Beasts) which produceth a precipitation, indigestion and putide smell into the Sulphur, through it's suddain fermentation.

I will now prove the verity of the assertion.

And, 1. I say, that the assertion is most probable; because the water wherewith the *Saffran of Metals* (*Crocus Metallorum*) which is *Antimony* calcined with *Nitre*, was washed, that is, wherein it was for a long time boyled, hath the same smell that the Water of *Moffet-Well* hath, when

when some drops of *Aqua-regia* (which is made of *Aqua-fortis* and *Salt-amoniack*) are instilled into it. Now the smell of the water of the Wells, is most like to the smell of the drops of powder, which remaineth in *Guns* which have been often shot.

2. This artificial Water tinctureth *Silver*, as the water of the Wells do.

3. In this water precipitateth the putide Sulphur of *Antimony*, which is redish-yellow; or rather the Antimonial atoms, wherein the fore-said Sulphur doth reside. And the stones of the Upper-well are covered with a matter, very much resembling the same.

4. The stones of the Nether-well are a little coloured like *Antimony*, and some of them do contain a metallick like matter, which doth scintillat almost like unto Antimony.

5. As the Water of the Nether-well descendeth into the preterlabent rivolet, a matter whitish and salinous (and without doubt Nitrous, wherein the diuretick virtue of the Water resideth) doth attach it self unto the rocks.

6. There appeareth no such matter upon the rocks, by which the water of the Upper-well descendeth; because the salish and scintillating stones of the Well have already detained and separated the same from the Water.

7. It is hence probable, that the Sulphur of the Upper-well will evaporat sooner, then that of the Nether; because it's Water containeth but little salt;

salt, which should detain the evaporating Sulphur: for *salt detaineth Sulphur*; and the smell proceedeth from the evaporating Sulphur, as shall afterwards be proven.

8. Before the evaporation of the Sulphur, the water doth not depose its salt upon the rocks; else it would be attached to the very inmost stones of the Neather-well (which is false) as well as to the ourmost.

9. The whitish stones of the Upper-well are nitrous and Antimonial: for when their double quantity of *Nitre* is added to them, and they afterwards calcined in a Mortar, they take flame after the same manner, that *Antimony* calcined with *Nitre* doth, and become like unto *Diaphoretick Antimony*.

10. Whilst this mixture is a calcining, it melteth and boileth as *Alom* cast upon a hot *Iron*, and contracteth great saltness and acrimony.

11. When I was calcining one of those white stones (gifted by a friend) with its anavie quantity of *Nitre*, and when I had caused pulverize the same, and mixed it with fountain water, there did immediatly arise a smell most like to that of the Wells.

12. When a little destilled *Vinegar* is instilled into the water wherewith the *Saffran of Metals* was washed, the like smell and precipitation are produced; and this mixture doth inquinat *Silver* with the colour of *Copper*.

13. The putide sulphur of the water of *Moffet-Well*s doth still evaporat; so that within few dayes the most limpid water is left destitute of all smell.

14. The putide sulphur of the artificial water doth likewise evaporat; yea, the simple water (without *Vinegar*) wherewith the *Saffran of Adonals* was washed, becometh destitute of all putide sulphur, when it is preserved for the space of three or four months: because it doth evaporat out of the alien humide body, and relinquisheth the antimonial atoms (wherein it did reside) separable by precipitation, upon the copious affusion of fountain water.

15. From whence proceedeth the vomitive and purgative virtue of the water, if not from Antimony?

We do therefore reject the common opinion, viz. *That the fore-mentioned water runneth through mineral sulphur or Brimstone, and that it borroweth its putide smell from it.*

But seeing Dr. *Andrew Baccius* (a Roman Physician, in his fourth Book of hot Baths, and sixth Chapter, entituled, Concerning places or Waters that are abominable, in either taste or smell) saith, that there are two general causes of all the stink of terrestrial things, whereof the one is per se, as they say, by the mixture of a thing naturally putide; and the other accidental, and by way of rottenness; and doth presently subjoyn, *That almost the whole substance of Sulphur* (by which,

which, me thinks, he can understand no other thing than *Brimstone*) consisteth in a rotten smell; and that the mixture of it with earth or water, is the first and general cause of all abominable smell and taste (yea, of natural rottenness, as he writeth a little after) but that the second cause of any stink is putrefaction, which is contrary to digestion and concoction, as saith Aristotle, viz. the corruption and indigestion of the proper and natural temperament, caused by external heat. In answer to which, we reply,

1. There is no body naturally *putide*: For, that stinking smell which is called *putor*, is the ingrate smell which proceedeth originally from the fore-said rottenness or putrefaction wherein the substance of *Brimstone* cannot consist; seeing that *putor* is only a quality and accident of a body: Now nature did never produce any kind of body naturally stained with any such spot as rottenness is; But that the loathsome smell, called *putor*, doth proceed only from rottenness (by the Latines called *putride*) and that the name *putor* is only given to its ingrate smell, hence appeareth; in that the multitude of *Authors* do call bodies, which are naturally indued with an ingrate smell, not *putide*, but *feride*, as *Asa fetida*, *Atriplex fetida*, &c. whose *factor* or stink, is a good and medicinal quality, by nature conferred upon them, and not a quality consisting in the corruption and indigestion of their natural and proper temperaments, by external heat. But they call *Ulcers* (whose in-

grate smell proceedeth from the corruption of the natural temperament by putrefaction) *putride*, and never *fetide*, as doth *Sennertus*, *Tom. 3. lib. 5. pag. 2. chap. 5.* at the beginning, and through the whole Chapter, he calleth these *Ulcers*, which he describeth, *putride*, and never *fetide*. And *Weckerus*, *Syntax. Medic. utriusque lib. 3. pag. 743.* concerning the curing of external diseases, and, in particular, of the *sordide* and *putride Ulcer*. He calleth an *Ulcer* that putrieth the member, *sordide*, *putrified*, and *putride*; although he saith, that from such an *Ulcer* ariseth a *fetide* and *cadaverous smell*, which we think improperly called *fetide*, seing it is not natural, but hath its original from putrefaction.

2. *Brimstone* that is not inflamed, hath scarcely any smell; and that smell which it hath, is not ingrate. Therefore the whole substance almost of *Brimstone*, doth not consist in an natural stink called *foetor*, much less in a preter-natural called *putor*; especially seing it is a natural and terrestrial mixed body; and a proper species or kind, intended by nature; as the same *Author* confesseth in the beginning of the second Chapter of the same Book.

3. We shall *hermetically* explain the forementioned *putrefaction*, which the *Author* hath *aristotelically* described, by saying, that the putrefaction of any body taketh its rise from the fermentation thereof. As for example, When the recent *Urine* of a man, or *Flesh* which hath never been salted,

Moffet-Well.

salted, or keepest for the space of one month longer, whilst they are fermenting, they putrefie; that is, the digested or concocted *Sulphur*, being by the internal *Mercury*, and the external heat inciting it, solved from the rest of the Elements, it beginneth to become indigested, and to evaporate; that is, to evanish, and then beginneth putrefaction and the putide smell, from the action of the Air, upon the evaporating and recrudescent *Sulphur*: for, where there is almost no combustible, or perfectly digested *Sulphur*, as in some Minerals and Metals, there is no fermentation nor putrefaction.

From what hath been said, it may appear, that fermentation is twofold, 1. When by the strength of the internal *Mercury* and external heat, the confused and naturally mixed elements of a body, existing in its natural estate (as of recent *Urine*, and such like) are solved and separated from one another: For, the solved, recrudescent and evaporating *Sulphur* of fermented *Urine* and *Flesh*, savoureth unpleasantly. And the sulphureous spirit of fermented *Wine* is separated from the salt, contained in the *Tartar*; and the *Tartar* is separated from the rest, when it is attached to the sides of the vessel: And fermented *Wine* savoureth, because of the evaporating *Sulphur*, whereas *Wine*, whilst it is in the Grapes, savoureth not, because it is not fermented, neither containeth evaporating *Sulphur*.

Moffet-Well.

2. When many bodies, fermented, as before, are united by an humide body, they are by the strength of the internal composed *Mercury*, and of the external heat, brought under one dominion and power; and all their qualities and properties (which are naturally distinct) do, by a new fermentation unite (as it were) in one new quality, (which nevertheless may afterwards be separated by defermentation, whilst the body is putrifying) as when different meats and drinks are changed into *Chyle*, and when of so many simples (fermented as before) sudorifick *Treacle* is made, which in process of time will putrifie: For, the virtues of the ingredients of recent *Treacle*, are really distinct, and each of them attempteth operation, after their proper manners, before fermentation; and then *Treacle* is exhibited with less success then afterwards, when it is sufficiently fermented. And this was the reason why *Banderon* asserteth, that *within ten years the frigidity of Opium and Hyosciamus, is overcome by the calidity of the rest of the medicaments. And therefore Philonium Romanum (whose composition they enter) is of little or no virtue. And the Opium, called Aurea Alexandrina, should not be made use of, until it be six months old; because the strength of the Opium doth predomine, and the fermentation is not yet ended. You will find these things in his Pharmacopoeia. But you would observe by the way, that putrefaction doth not arise in every fermentation, but in that only wherein is, 1. much*
recrudescing

recredefcing *Sulphur*, as in *Electuaries*, both liquid and folide, whose composition *Almonds*, the greater *Cold feeds* (commonly fo called, but which yet are really, though temperatly hot; for there is nothing cold wherein *Sulphur* doth abound: And that the truth of this may be unquestionable, I fhall only add this, that the intense heat of *Muſtard*, doth mainly, if not only, exiſt in its abundant *Sulphur* or *Oyl*, whereof it containeth ſo much as will in few dayes wet a ſheet of paper (as if it were dipped in *Oyl*) wherein its powder is kept; and the difference betwixt the taſte of this *Sulphur*, and that of the fore-mentioned feeds, proceedeth only from the different degrees of heat proceeding from the different degrees of concoction) and ſuch like do enter: for ſuch become ſoon rancide, and do putrifie, becauſe they contain almoſt no *Salt* for fixing of the *Sulphur*, and prohibiting its recredeſcence. 2. Or where there is much ſuperfluous humidity, which inquinateth the *Sulphur*, as in the fermentation of *freſh Fleſhes*. 3. Or where there is not a free egreſs given to the ſuperfluous (though not abounding) humidity; as when a *green herb*, or piece of *ſleſh*, wrapped up in a two or three-fold cloath, doth putrifie, whereas it would have been fermented and dryed without putrefaction, if it had been hung up in the open air.

4. All (*avour* or *ſmell*) (whether pleaſant or unpleaſant) proceedeth from the evaporating *Sulphur*; for ſuch things as are moſt ſulphureous,

are most odoriferous, whilst the *Sulphur* is evaporating, as *Camphire*, *Turpentine*, &c. But *Stones*, *Metals*, &c. which are almost destitute of all combustible *Sulphur*, are likewise also destitute of smell. And there be many very sulphureous bodies which are void of smell before the *Sulphur* begin to evaporat, as the recent *Urine* of a Man, and the *flesh* of new mactat animals, which smell most abominably whilst their *Sulphur* is evaporating in their fermentation. And yellow *Lamery*, which is void of all smell, containeth a most odoriferous *Oyl*, as appeareth when it is distilled or inflamed.

5. *Salt* detaineth *Sulphur*, and to its power prohibiteth its evaporation. And this is the reason why the recent *Urine* of a Man smelleth not: For whensoever the *Salt* of the *Urine* (which also stinketh, because of a little *Sulphur* which it detaineth united to its self) beginneth to be separated from it, and affixed to the sides of the Matule, the *Sulphur* beginneth to evaporat, and the loathsome smell ariseth. Likewise fresh *fleshes*, for the same reason, have no abominable smell, and the future *putride* and loathsome savour is prevented by the admision of *Salt*: For the *Sulphur* of salted *fleshes* is fixed and detained by the *Salt*, so that it cannot recrudescce, nor evaporat abundantly, with any abominable savour; and the putrefaction is also exiled by the *Salt*, which doth not absorb (as some do ridiculously affirm) but contemperat the superfluous humidity as before.

6. *Brimstone*,

6. *Brimstone*, not inflamed, doth scarcely emit any savour; because its combustible *Sulphur* is by its *Salts* (*fixed* as well as *volatile*) detained from evaporating. Now that *Brimstone* containeth *salts fixed* and *volatile*, is hence proven, that out of its dross, after the separation or consumption of its combustible *Sulphur*, the former is extracted by lixiviation; and it is the latter, which being resolved into smoak, and ascending into the vitreous *campane*, is by the humide air resolved into a most sharp *spirit*, or spiritous liquour, which falleth down into the other *campane*, which is the receiver; and it is called the *Oyl* or *spirit of Brimstone* by the *Campane* or *Bell*.

7. The quality of the vapors of inflamed *Brimstone*, which affecteth the Nostrils, is not so much a *smell* as a corrosive quality, existing in the *Volatile-salt*, resolved into smoak, as was said, which doth mordicat the tender skin of the Nostrils, penetrateth into the brain, perturbeth it, and deceiveth the sense, and sometimes killeth, as is demonstrated by its killing of *Bees*; for all smell proceedeth from the evaporating combustible *Sulphur*, as was formerly proven: but the combustible *Sulphur* of *Brimstone* doth not evaporat when it is inflamed; because it is totally converted into flame and consumed, and none of it doth evaporat, or is converted into smoak with the volatile *salt*: for, if from inflamed *Brimstone*, sulphureous smoak doth ascend, with the salinous, into the vitreous *campane*, why are not the former condensed

condensed into a sulphureous, as the latter are into a salinous liquor? Moreover, no sulphureous body, which is void of volatile *salt*, emitteth smoak when it is inflamed, unless it be blown upon by wind, and so a little of the flame be extinguished and converted into smoak; as *Sheeps-tallow*, &c. But the smoak of *Lamer Camphire*, and such like inflamed bodies, is only the volatile *salt* resolved into smoak; which any man will confess when he shall, in vain, have sought for a sulphureous and combustible liquor amongst the foresaid condensed smoaks, which become either a *salt* only, or a spiritous liquor, as was said concerning the volatile *salt* of *Brimstone*. Likewise, no fixed *salt* doth emit any salinous vapors, when it is melted by the fire; and therefore in the destilling of such salts (as of *Nitre*, *Sea-salt*, &c.) the double quantity of some *Earth* (as of *Bolo of Armenia*, calcined *Alloy*, *Sand*, &c.) is usually mixed with them; that their fusion may be hindred: for the heat of the fire doth sooner convert the atoms of the *salt*, which are separate from one another, by being mixed with the atoms of the *Earth*, into a spirit, then if they were united into a liquor by fusion (for *united virtue* or strength, is stronger for operating or resisting, and contrariwise) and the atoms of the *Earth* do impede the union of the salinous which are melted by the heat, and converted into a spiritous vapor. But some perchance will say, if the quality of inflamed *Brimstone*, which affecteth the nostrils, were only a corrosive quality, existing

existing in the volatile-salts, then the forementioned spirit of *Brimstone* (which is its volatile-salt dissolved into a liquor by the humide air) cast upon burning coals, would emit a smoak endued with a corrosive quality, which would affect the nostrils, trouble the brain, and deceive the sense, as before. To this I answer, that this cometh not to pass, because the volatile-salt (in which only the corrosive quality doth exist) is detained by the fixed-salts of the coals, which doth prohibit its evaporation with the humide air, which was first converted into water, and is again resolved into smoak. The truth of these things will afterwards better appear in the answers to the first and second Objections.

8. From the premisses we conclude, that the whole substance almost of *Brimstone* consisteth not in a rotten smell, and that it cannot, in a natural manner, communicat to any earth or water, an unsavoury smell, whether natural (called *fætor*) or unnatural, called *putor*. For only the salts of *Tartar* and *Lime* can produce the solution in water, and indigestion (from whence proceedeth the putide smell, which it communicateth to water) of the combustible *Sulphur* of *Brimstone*; as in the composition of *Lac sulphuris*: For when *Brimstone* is boiled in water, with the salt of *Tartar*, the combustible *Sulphur* with the salts (being by boyling associated to the salt of *Tartar*) becometh dissolved in the water, which (before its fermentation) smelleth no otherwise than *Brimstone*

stone which is not inflamed. Now the fermentation of this water, thus impregnat, is, 1. subitaneous, when some drops of distilled *Vinegar* are instilled into it; for then the *salt of Tartar* doth associat it self to its like (according to the proverb) viz. the salt of *Vinegar*; both which have their original from *Wine*. And after the precipitation of the powder, it relinquisheth some of the combustible *Sulphur*, mixed with the water, which incontinent becometh indigested, and beginneth to evaporat, because it is dissolved in a strange humide body, and is associated to a strange *salt*, which cannot hinder its evaporation, from whence proceedeth the unpleasant smell (most like to that of the yoke of a hard boyled *Egg*; and most unlike to the smells of not-inflamed *Brimstone*, and *Moffet-Wells*) which argueth the indigestion of the combustible *Sulphur*. 2. Or flow, because the *salts*, &c. of the *Brimstone* and *Tartar*, do within few hours affix themselves to the sides and bottom of the vessel wherein they were boyled, and then beginneth the fore-mentioned loathsome smell, as was said concerning the fermentation of *Urine*. Now that the reliques of the combustible *Sulphur*, which are mixed with the water, do re-crudescce, appeareth hence; that this putide water doth extinguish fire, and its reliets do not take flame as doth the *Sulphur* which is by the *salts* detained into the precipitated powder. The same cometh to pass when the double quantity of the powder of *Lime* is mixed with *Brimstone*, and both

both are distilled together: for, then some few drops only of (almost) insipide (but stinking) *Phlegme*, (like the fore-mentioned water, impregnated with the combustible *Sulphur* of *Brimstone* and *Salt of Tartar*) do exstill, although you should augment the fire unto the liquefaction of the *Glass Retort*: thus was I cheated, in seeking after *Schroderus* his *Oleum Sulphuris rubrum* described in his *Pharmacop. Med. Chym. lib. . cap. 28*. Here you may take notice, that it is impossible to extract out of *Brimstone*, a sulphureous and combustible *Liquor*, without mixing with it some other body, containing a combustible *Sulphur*; because the combustible *Sulphur* of *Brimstone* is so united to it's *salts*, and so detained by them, that it cannot be separated from them without the actual touch of fire; and when it is so touched, it becometh presently inflamed and consumeth totally, as was asserted. We said, 1. that *Brimstone* could not, in a natural manner, communicate to earth or water, any putride smell. 2. That by the *salts* only of *Tartar*, or of *Lime*, the solution in water and indigestion of the combustible *Sulphur* of *Brimstone* can be produced; because neither *Nitre*, *Salt-Amoniack*, nor *Salt-Gemma*, (which only are true *Mineral-salts*) can produce the solution in water, or indigestion of the foresaid *Sulphur*: Neither will the longest infusion or decoction of *Brimstone* in water, produce the solution and indigestion of it's combustible *Sulphur*; because it is most strictly united

to it's proper *Salts*. Seing these things are collected from our own proper experiments only, we are of opinion, that from them may be concluded that it is most probable, that the water of *Moffet Wells* passeth not through *Brimstone*, seing the dissolution in water, and indigestion of it's combustible *Sulphur*, cannot be caused by any true mineral *Salt*; and the *Salts* of *Tartar* and *Lime* (which only the fore-mentioned effects can be produced) neither were, nor ever can be, found in the veins of the earth, through which the water do run.

Borlaugh

The fore-mentioned *Author*, (otherwayes more learned) in the beginning of his 9. chap. of his 4. *Book of hot Baths*, judgeth also amiss, in saying that the cause of fervide Fountains is an actual fire, in these words: *Seing the waters do spring abroad very fervide or hot, we must of necessity confess, that an actual fire, above all degrees of heat, is beneath them: for, the very waters themselves, do bewray the very substance of fire in self, a most hot quality, and the operations likewise of fire; they burn,* (observe here, that the *Author* useth two words, *incendant* and *arunt*: by the former of which, if he do mean, that they do inflame or kindle, he is yet further in the wrong; for, there is no solid body more easily set on fire then *Gun-powder* is, nor is there any liquide body of a more facile inflammation, then the rectified *Spirit of Wine* is; and yet neither of these could ever be inflamed by any such waters as he mentioneth,

to scumpe the Water of Musket-molds' Sins:
little most likely the drops of Gun-powder,
remaining in a Gun, which hath been often
shot, (Gun-powder consisting, for the most
part of Brimston and Sulphur) It is the
vulgar opinion of Physicians, that this water
runneth through Brimston. To which I doe
oppose these two reasons.

This Water vomiteth and purgeeth most commonly
but none of the forementioned affections, can
be shewed and Medecines made of Brimston, which
commonly dooth either, I say commonly: Brimston
may cause some or no persons,
purge or vomit or both by reason of some
Naturall Intemperaty. As I have heard it re-
ported, that there is a family in France,
all the branches of which have such a Naturall
intemperaty at the Nose, that notwithstanding
be a flavor most refreshing to Man-kind they
are faint at the smelling or tasting of it.

2 It is sufficiently well known to all physicians, that all Medicines made of Brimston (as the Flowers, Magistery or Lar Balsam Tincture Spirit &c) are most effectual in curing of a Consumption. But it is also well known that this Matter is also insupportable to all persons, who have this Disposition, or whose Bodies are in a Disposition to take it: for it hath often proved such unto Eternity.

I do therefore adhere to my own opinion viz: that Lead impregnated with the Sulphur of Antimony; which I have separated from Antimony; and was yellow and inflammable as common Brimston; and affected the Rostred (when inflamed) just as common Brimston doth by its vapor, which ascends from it, when it is inflamed.

tioneth, neither by the most rectified *Aqua-fortis*, which according to his judgement, hath as many degrees of heat, as any of these waters of which he writeth) *vesicat*, destroy sense, *expilat* whatsoever Animals are cast into them, then *excoriat* a little, and at length do consume the flesh, and *enervat* to the very bones; all which, are the effects of fire.

These things are spoken amiss, 1. because the very contrary effects are at some times produced by bodies which are most hot; as when the most rectified *Spirit of Wine*, and all sulphureous *Oyles* which are drawn out of *Spices*, as also the *Oyl of Lamer*, do not destroy sense, but revivifie it when it is destroyed, and, as it were, dead, as in the *Palsie*. 2. There be two bodies, *viz.* *Iron* (which no man did ever call more hot then cold) and *Aqua-fortis*, (which is composed of *Nitre* and the *Salt of Vitriol*, which are really cold) radically frigide; the mixture of which (in a *Glass Cucurbit* covered with it's *Still*) produceth a great heat, ebullition and destillation, and that without the external adhibiting of the heat of fire. Now this heat ariseth not from actual fire (seing the fore-mentioned bodies are not fiery nor hot) but rather from the motion of the corrosive *Aqua-fortis*, whilst it operateth upon the *Iron*, for dissolving of it: for, *motion produceth heat*, as when a piece of *Lead* (which is of it self most cold) contracteth heat, being beaten by an *Iron Pestill* or *Hammer*, which also are naturally cold. That actual fire is
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in neither of these two bodies ; and that it produceth not this heat , appeareth hence , that the most rectified Spirit of *Wine* (which is most easily inflamed) when mixed with *Aqua-fortis*, whilst it is dissolving *Iron*, conceiveth not flame, but doth debilitate the action , and totally prohibite it for a time : But we shall easily shew, that *Aqua-fortis* and every *acide Spirit* (as the Spirits of *Vitriol*, *Nitre*, *Brimstone*, &c.) which do vesicat , burn, as it were, &c. are not hot but cold ; by proving, that every *Salt* (especially the fixed) is cold, seeing the fore-mentioned *Spirits* and water, are only *Salts* converted into *Liquors*, either by the heat of the fire or humide air.

Arg. 1. And, 1. we say, that all Physicians (both *Hermetical* and *Galenical*) do acknowledge, that *Nitre*, the Spirit of *Vitriol* (which *Angelus Sala* in his 6. chap. concerning the nature of the spirit of *Vitriol*, asserteth to be borrowed from *Brimstone*, and to have the same virtues and properties with the spirit of *Brimstone*, and which in the 10. chap. he acknowledgeth to be hot in the fourth degree) the Spirit of *Brimstone*, &c. do refrigerate, although they do say, that they do it accidentally only, and by de-obstruating. As for example, when some drops of the Spirit of *Vitriol* (which they call hot) by de-obstruating the pores of the body, do conciliate a more facile entry to the refrigerating water. I do acknowledge, that it is not admirable, that this opinion, thus masked with the specious dress of probability, and vulgarly believed,

lieved, because established by the authority of Antiquity, hath hitherto inclined the reasons of all men to an assent and conformity unto it; but yet, upon the evidence of hope, we dare promise to our selves, that our not understanding, how actuall cold, and (an effectually cooling quality, can consist with radical heat, will avert from us the odious attribute of presumption, and conciliate a favourable construction to this our singularity and non-adherence to Antiquity: because that distinction never was, nor could be, applied to any (without controversie) hot body not salinous; as to the *spirit of Wine, Oyl of Cloves, Cinnamon, Mustard, &c.* any of which, being mixed with the most cooling liquor, will, without controversie, diminish its frigidity.

2. *Aqua fortis*, the (*spirits of Vitriol and Brimstone*, the *spirits of common Salt*, the *Oyl of Tartar* by deliquation (which is the Salt of *Tartar* dissolved into a liquor by the humide air in a cold or subterranean place) the *Oyl of common Salt* by deliquation, &c, do extinguish the fire as doth the coldest water. Therefore they are, in their first qualities, heterogeneal to fire: for such bodies only are (and ought to be) vulgarly called homogeneous to fire in their first qualities, which do contain some matter which becometh nourishment unto fire (*Salts and Salinous bodies only excepted*) and that is only *Sulphur* (if it be almost insipide (as the *Sulphur* or *Oyls of sweet Almonds, Olives, &c.* before they become rancid)

cide) then the body which containeth it, is not called *hot*, but temperat in heat; but if the *Sulphur* be very sapide, and do affect the taste much, the body wherein it doth reside is called *hot*; and its degrees of heat are commensurate by the degrees of its sapidity. Now every pure *Salt* is altogether destitute of such matter. Moreover, the frigidity of bodies which are estimat cold, should likewise be measured by their different degrees of sapidity; as *Cicory* is colder than *Lettice*, and the juice of a *Limon* is colder than either, and the spirit of *Vitriol* is the coldest of all the four, &c. Neither is this contrary to the common saying of Philosophers, viz. *that water is the coldest of all bodies*; for that is only to be asserted of the pure elementary water, which is not to be found amongst us, and unto which (without all controversie) frigidity in the highest degree is as proper as siccity, humidity and calidity, are unto the Elements of *Earth*, *Air* and *Fire*. So that it is more then probable, that as the refrigerating cold of some springing waters doth hugely surpass the same quality in common fountain water, so likewise the frigidity of the elementary water doth surpass that of the spirit of *Vitriol*, and springing water, as far as the strength of *Aqua fortis*, doth the strength of the juice of *Limon*, in dissolving of *Pearls*; both which do operate after the same manner, only dissolving them into powder, without destroying their natural temperaments, which fire doth, when it dissolveth them, or any thing else; all which do undeniably evince

this

this, that *Corrosives* are not of a fiery and hot temperament.

3. Every *Fixed-salt* doth naturally attract those things which are cold and humide, as *Water* and *Air*: therefore it is in its first qualities (frigidity and humidity) homogeneous to them. Moreover, as the action of the spirit of *Wine*, *Aqua-vite*, &c. upon *Oyls*, whereby they dissolve them, and unite them unto themselves, doth argue the *Oyls* (*viz.* of *Cinnamon*, *Anise*, &c.) and *spirits* to be homogeneous; so likewise we do most probably conceive, that the dissolution of *Salts* by water, doth demonstrat the homogeneity of their natures. For no natural body, which is in its natural estate, doth naturally appetize or attract its contrary. Nor is it contrary unto this, that an animal whose stomach is distempered with calidity and siccity, naturally desireth a humide and refrigerating body; because that stomach is not in its natural estate; neither is it the stomach, but the Animal, (whose the stomach is) which desireth the curatation of the morbidick distemper, by a humide and refrigerating body.

You would here take notice, that the cause of *Thirst* which is by *Aristotle*, in his second Book of the *Soul*, called, a desire after a humide and frigide body) is two-fold, *external* and *internal*; each whereof is either *hot*, or *corrosive* and *cold*: For *corrosives* are really different from such things as are *hot*, as shall afterwards appear, from what hath been, and is to be said. 1. The *internal hot*

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cause

cause of thirst, is a hot distemper of the whole body (as in a *Feaver*) or of some part of it, as of the *Stomach, Liver, &c.* 2. The *external hot cause of thirst*, is the radical heat of meat or drink, existing in their sulphureous parts, which produceth a hot distemper in the stomach, &c. 3. The *internal corrosive cause of thirst*, is a *bilious, salt, and corrosive humor*, which corrodeeth the skin of the stomach, and by motion, in the solution of continuity, conciliateth heat in the corroded part only, whereas the heat of meat and drink do sometimes produce a hot distemper in the whole body, each of whose parts, after the concoctions, it permeateth. 4. The *external corrosive cause of thirst*, is the corrosive salts of meat and drink, which do corrode the stomach, as before. For the cure of *thirst*, proceeding from a hot cause (whether external or internal) a body radically and actually cold and humide, is necessarily required. But for the cure of *thirst* proceeding from a corrosive cause, a humide body, radically only (though not actually) cold, is sufficient, wherein the *Salts* may be dissolved; which being done in a copious humide body, they become so debilitat, that they cannot any more corrode the skin of the stomach: for *disjoyned virtue or strength is weaker*. Now this solution is more easily effectuat in a humide body which is actually hot, than in one which is cold. This sort of *thirst* is curable also by *Pearls, Coral, &c.* For when such things are put into the stomach, the *Salt* of the corrosive humor doth
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affix it self to the atoms of the *Pearls, Coral, &c.* and so the humor is dulcified (as is *Vinegar*, when affused to *Corals, Red-lead, &c.*) and loseth its corrosive quality, and then the *thirst* ceaseth.

Here we cannot but inquire after the cause and cure of that common and troublesome distemper, vulgarly called *the Heart-scade*. We conceive that it is caused by acide and corrosive humors, which being congealed into the stomach, do irritat its expultrix faculty, so that they are constrained to mount upwards to the throat, where the greatest pain and trouble is found; because the corrosive humor having excoriat the *Oesophage* or *Wexand*, it is still most sensible of the mordication of the humor, which is most active upon the uppermost part, upon which it beatech with violence: So this may be called *an imperfect vomiting*; because there is but little or nothing expelled at the mouth, the humor descending again into the stomach. The cure of this turbulent distemper consisteth, 1. either in the evacuation of the peccant humor, (which is the perfect cure) or, 2. in the correcting of its corrosive quality by dulcification; or, 3. in prohibiting this ascension of it to the throat, which are palliative cures: As to the first, the only best way for evacuating of the peccant humor is vomiting: for *Art* ought to imitat *Nature*, and assist her in her attempts which tend to the good of the creature. The second sort of cure by dulcification is (as we conceive) three-fold; 1. by drinking of the purest fountain water in the morn-

ing, and at five of the clock in the after-noon, when the stomach is empty. I am confident that the water of *Moffet-Well* will cede to none for this use; because it will not only dulcifie the corrosive humor, but also help to expell it by stool. The person may drink more or less, according to his, or her age. 2. By *Corals*, *Pearls*, and such like, as was said a little before concerning the cure of *thirst*. 3. By the using of *Salts*, either purely natural, as *Sea-salt*, or which have been by art extracted out of *vegetables*, as *Worm-wood*, &c. This will certainly appear as a great Paradox (if not a falsehood) to all who are ignorant of our *Spagyricall art*, and particularly of the operations of *salts* of different properties, upon one another. But for the evincing of the truth of what hath been said, I will first relate a story, and then give the reason of the effect. A near friend of mine own, who was as much molested with this distemper as any other ever was, essayed all the cures which were known to any with whom he had discoursed concerning that disease, but the most sovereign of all, he found to be the eating of a little of the *saltest Beef* in the morning; after doing of which, he was not at all assaulted by the distemper that day. Now the reason of this effect is evident, to be none other than the operation of the *salt* of the *Beef*, upon the *salt* of the *corrosive humor*, by which it was dulcified. As in the making of *Tartar-Vitriol*, the *Oyls* of *Tartar* and *Vitriol* (which are most salt, sharp and corrosive) being

being mixed, do produce a liquor altogether intipide. The third way of curing this disease is by prohibiting the ascension of the humor to the throat. This is done by the drinking of the spirit of *Wine*, or *Aqua-vita*, which do prohibit the ebullition of the humor, and consequently the ascension of it, or of vapors from it, unto the throat: For either of these being mixed with *Aqua-fortis*, when it is dissolving *Iron*, will prohibit and hinder the action and ebullition of the corrosive liquor. This is the worst of all cures; for although the person will get present ease, yet the distemper will recidivat more violently than before; because the corrosive liquor is not only by the remedy augmented in its quantity, but also in the degrees of its corrosive quality: for the corrosive liquor in the stomach doth fix the volatile spirits of the *Wine* and *Aqua-vita*, and so converteth them almost into its own nature; as you read before in the Preface, concerning the *natural composed ferment*. I will add a fourth way of curing this distemper, viz. the taking of such things as will imbibe the corrosive humor in the stomach, and carry it unto the intestines. I mention this, because I was informed, that one who was molested with this distemper, used to eat a great quantity or number of *Groats* made of *Oats*, and so was eased. The ordinary cure by drinking of sweet *Milk*, cannot but be reprehended: for though it ease a little at first, yet it causeth a recidivation when it is fermented into the *stomach*, and becometh acide, as in a

Churn, when reserved for making of *Butter*,

4. Every pure fixed *salt* is radically *humide*, without the admision of any sulphureous and combustible matter, (for by fusory calcination it is converted into a *Liquor*) therefore it is also radically *cold*. I said, *without the admision*, &c. because every sulphureous substance is also radically *humide*.

5. Such bodies as contain more perfectly concocted and combustible *sulphur* then others, are commonly (and deservedly) called *hot*; as are these *Spices*, *Cinnamon*, *Nutmegs*, &c. and the sulphureous spirit of *Wine*: and contrarywise, such as contain less of the foresaid *sulphur* than others, are said to be *cold*, as *Hestice*, *Pursalaine*, *Cichory* (whose great bitterness proceedeth from *salt* and *sulphur*) &c. and the corrosive parts of many *Vegetables* (so called, because they dissolve *Pearles*, *Coral*, &c.) as *Vinegar*, the *juyce* of *Lemmons*, &c. are *cold*, without all controversy. Now we desire to know, why such as acknowledge *Vinegar*, &c. to be *cold*, do deny the salts of *Tartar*, &c. (which are altogether void of *sulphur*) to be also *cold*, seing they are of the same nature? For, the acidity and corrosive quality of the *Vinegar*, do exist in it's *salt*, which albifieth the atoms of the *Coral*, *Lead*, &c. which are dissolved by it, (for every purified *salt* is white) and this *salt* is the very self same *salt* of *Tartar* so dissolved in an aqueous body, that it is inseparable by distillation, without the addition of

of some other body : for, the acide Liquor of every body, which is commonly called *Mercury*, is nothing else but a little of the *salt* (especially) fixed of the same body, dissolved in the aqueous part ; which appeareth hence, that in the abstraction of destilled *Vinegar* from *Lead* or *Coral* which it dissolved, whensoever the sulphureous Spirit (of which in the Preface) exstilleth, the next insuing Liquor is almost insipide, as water ; because it's *salt* (which did formerly render it acide) hath forsaken it, and betaken it self to the atoms of the body which it dissolved, and now doth albifie. Moreover, there is no corrosive body which is not saltish, neither any saltish body which is not corrosive ; neither doth the sulphureous Spirit of *Wine*, it's extraction of the *resine* out of *Jalap*, falsifie this ; for it extracteth it not by a corrosive quality (because it is void of *salt*, and therefore corrodeeth not the terrestrial part of *Jalap*, dividing it into atoms, as *Vinegar* doth *Lead*) but by a real fry heat, which liquifieth the *Resine*, and existeth in the sulphureous and inflamable *Spirit*, and from thence proceedeth the mutation of the colour ; for, the Spirit of *Wine* which is impregnat with the *Resine* of *Jalap*, is almost tintured with redness.

It doth hence appear, that the frigidity of *Nitre* may be questioned, seing it containeth much *sulphur*, though indigested ; as appeareth hence, 1. *Nitre* cannot be dissolved by deliquation, as the rest of *salts* which are voide of *sulphur*, before that the *sulphur* be separated from it by calcina-

tion. 2. A drachm of *Brimstone* being injected upon *Nitre* which is liquified by the fire, flameth longer then if it had been cast upon burning coals; because of the *sulphur* of the *Nitre* which also conceiveth flame, and consequently prolongeth the burning. Here observe, that it is only the crudity or indigestion of the nitrous *sulphur*, which hindereth it's inflammation, when it is not associat to *sulphur* that is perfectly digested, and which is inflammable of it self, (of which sort are the sulphureous parts of *Brimstone* and *Coals*) because the *salt* which detaineth the *sulphur* cannot prohibit it's inflammation, seing the most abundant *salts* of *Brimstone* do not hinder the inflammation of it's combustible *sulphur*.

6. *Aqua-fortis*, destilled *Vinegar*, &c. do not burn, therefore they are neither *hot* nor *fiery*; for, such things as are burned or consumed by fire, cannot be resuscitated, and their proper temperaments are destroyed; (as when *Stones*, *Salts*, *Iron*, *Antimony*, &c. are vitrified by fire) but such things as are dissolved, as it were, burned and annihilated by *Aqua-fortis*, destilled *Vinegar*, &c. their proper temperament is not destroyed, and they can be resuscitated: for, what is the precipitation of *Coral* and of such like, who have been dissolved by the fore-mentioned Liquors, but their resuscitation? And when they are resuscitated, they are endued with the same virtues where-with they were enriched before their solution, as is confessed by all Physicians, who prescribe this manner of their preparation,

preparation ; and then make use of them, as more effectual then formerly. But some, perchance, will say, they are not intirely refuscitated, nor can they be reduced to their pristine estate. As for example, it is impossible to convert *Lead* which was dissolved by destilled *Vinegar* (and afterward separated from it by precipitation, and converted into *Cernis*) into *Lead* again as it was. I did truly essay this, but to no purpose ; for this matter cannot be liquified, without the most intense heat of the fire, and then it is only converted into a matter, like unto the *lischarge of Gold* ; the reason whereof is most probably thus, viz. that the corrosive salt of *Vinegar*, which hath affixed it self unto the atoms of the *Lead*, can never be separated from them (for which consult the *Animadversions of Dr. John Zuelser*, upon the *Magisterial powder*, described in the *Augustan Pharmacopoeia*) and prohibiteth the liquation of those atoms (which of themselves are most easily melted) before that it self be melted, which requireth a most intense degree of heat : for it is of the same nature with the salt of *Tartar*, as was said, which is not easily melted. These things are most true, and being calculated according to their seeming altitude in the meridian of reason, would appear to be nearer the Zenith of truth, than our sixth argument ; But the contrary will evidently appear, if you consider, that it happeneth not so in all ; for although you should a thousand times dissolve, and, as it were, annihilat *Quick-silver*, by the strongest corrosives

roives and causticks (as they call them) yet a little heat will revivify it again, and cause it recuperat its pristine form, *Protens*-like. And yet the self same *Quick-silver*, which is most impatient of the heat of fire (for it flyeth from its vesicating and depilating degree, and far more rather its actual touch, by which it is quite dissipated) esheweth not the most intense (somnia) heat of corrosive bodies, nor is it dissipated thereby, but only converted into most minute atoms, and that without the destruction of its proper and natural temperament. Therefore, such things as are (as it were) burned by corrosives, are not burned and destroyed by any *fiery* and *hot* substance, but only converted into most small atoms, by a *corrosive* and *cold* one, without the destruction of their proper and natural temperaments.

It is no small ground of admiration to me, that no *Chymicall* writer which I have seen or heard of, did ever expressly assign unto their *Principles* or *Elements*, first qualities; as did the *Peripatetic Philosophers*, who attributed *heat* to *fire*, *humidity* to *air*, *frigidity* to *water*, and *siccity* to *earth*. I will therefore further attempt the proving of *Salt* to be radically *cold*, and *Sulphur* *hot*, from the most learned assertions of the most admirably ingenious Physician Dr. *Thomas Willis*. I will begin with the last, being least controverted, and soonest dispatched.

In his *Diatriba Medico-Philosophico de fermentatione*, cap. 2. (cui Titulus, *Chymicorum Principiorum*,

cipiorum descriptio, eorum; proprietates & assertiones) where writing of Sulphur, he asserteth thus: *Rei cuiusque temperies, quoad calorem, consistentiam, & amabilem texturam, à sulphure imprimis dependet. i. e.* The temperature of every thing, as to heat, consistence and lovely texture, doth originally depend upon Sulphur.

As to the first, that *salt* is radically cold, in that 2. chap. of *salt* he writeth thus: *Rebus compactionem & soliditatem, nec non pondus & durationem largitur, corporum dissolutiones retardat, congelationes & coagulationes promovet; putredini, corruptioni, & inflamabilitati plurimum resistit.* The knowledge of those things pertaining only to such, whose literature doth capacitate them to understand them, as they are here set down; and it being impossible to express them so significantly in *Scots*, I will not molest the Reader with a Translation, but only deduce my consequence from them.

I am confident, that none, who have any knowledge of Nature and her admirable works, will deny, that the most compact, (*Diamond*) solid, (*Gold*) ponderous, (*Lead*) durable (*Silver*) bodies, are radically cold; the existence of which quality in them, is further demonstrat by their long resisting the violence of fire (which is the most violent and agile dissolver of the natural unity of Bodies) their congelation and coagulation, whereby they are capacitate to deny obedience to the greatest violence (excepting that of *malleation*)

tion) when thereby required to alter their natural circum-scription, by their own superficies; as also, by their incapacity of being putrified, corrupted or inflamed. If then the most compact, solide, ponderous and durable bodies, &c. be radically cold, it is undenyable, that that from which they have these properties is far more such; for, *propter quod unum-quodque est tale, id ipsum est magis tale*. Moreover, doth not, only their resisting of the violence of fire, demonstrat their natural qualities to be opposite to those of fire. Whatever shall be said to the contrary of this, I am most confident that it is most undenyable in all other things.

Further, our fore-mentioned Author (whose ingenuity shall never be sufficiently admired) in his *Diatriba de Febris*, cap. 3. he writeth thus. *Rigor aut frigoris, calori precedens, in febribus intermittens, causa, est succi nutritii portio, quæ insignem acorem contraxit, quo partes nervosas valde pungit & vellicat, atq; frigoris sensum incutit (non secus ac Cervesia novella, qua utribus inclusa, à dulci in acidum, & nitrosum saporem transit, ut præ acore & frigiditate vix deglutiri poterit) cum hujusmodi crudi succi particule nitroso acore prædita, in fluore esse incipiunt, spiritus vitales acore suo primo obtundunt, & calorem nonnihil obrunt: quare sanguis frigidior existit, & tardius circulatur, quin & ob caloris defectum, sensus frigoris in toto corpore percipitur.*

Ex prædictis (ni fallor) manifeste sequitur.

1. Sanguinem in statu naturali existentem esse calidum propter spirituum vitalium (quos sulphureos esse, nemo inficiabitur) abundantiam & vigorem; Cervisiam etiam esse calidam, propter spiritus sulphureos.

2. Sanguinem & Cervisiam novellam, a caliditate gradatim debiscere, prout ipsorum partes salinae, sulphureis præpollere incipiunt, viz. cum fluorem adipiscuntur, ut ait D. Willis.

3. Sanguinis partes salinas, frigoris aut rigoris sensum, nervis incutere, in febre intermittente; ut Cervisia acida sal, fluorem adeptus, lingua & faucibus tantam frigidaem infligit, ut deglutationem ferme prohibet.

4. Sal radicaliter & natura sua frigidum esse.

Prædictum est, admiratione dignum esse, Medicum asserere, Acetum, Limonii succum, & similia refrigerare; Aquam fortem autem Vitrioli spiritum, &c. urere, & calefacere, cum gradualiter differant, tantum in frigiditate, ut globus ferreus, ita tantum calefactus, ut manu contractari possit, & ipsi frigido calorem communicet, in caliditate differt ab alio intensissime ignito, qui incendere, urere, &c. potest; qui tamen, si aqua quantitati proportionate immittatur, ei caloris gradum communicabis, qui nativum animalis calorem non destruet, sed tantum fovebit, ut Vitrioli spiritus, qui, ignis instar, vesicas excitat, sensum destruit, animalia expilat, calorem febrilem, præternaturalem amice repellit, cum

Julepis

Julepis refrigerantibus gustatim permiscetur. Audent etiam nonnulli impudenter asserere, Limoni succum esse calidum; quod si verum sit, quodnam quæso medicamentum dicetur frigidum?

Ostendamus nunc quomodo differant salsum, acidum, acre, & amarum, idque latine etiam: Quia voces vernacula congrua non suppetunt. Ex. gra. sal marinus decrepitatus, est simpliciter salsus; decrepitationem vero antè, acidus potius dicendus est, ut & Nitrum, Vitriolum, Tartarum, instar Aceti, Limonii sucçi, & similitum, quæ acida sunt, propter Sulphur in quantitate exigua admistum, quod salsedini, dulcedinis quasi gradum unum inancit; ideoq; Tartarum acidum, cum calcinatur fit salsum; & Acetum acidum cum Plumbi atomis, Sulphur continentibus, imprægnatur, dulcedinem quasi acquirit. Deniq; idem sal marinus decrepitatus (ut & Nitrum, Vitriolum, & quodlibet sal fixum) cum ignis violentia, destillandum inter, in liquorem resolvitur, salsedinem amittit, & acredinem contrahit. Itaque salsedo & acredo, in hoc tantum differunt, quod salsedo sit qualitas corporis salsi densioris, & minus activi; acredo autem, varioris, ideoque majoris activitatis; quod hinc ulterius patet. Salis etenim spiritus prædictus acris, sali novo decrepitato affusus, in vase circulatorio, cum post debitas circulationes fixatur, & sali decrepitato unitur, acredinem amittit, & salsedinem contrahit.

De amaro autem dicimus, ipsum causari a mixture (forme anatica) Sulphuris & salis volatilis

tilis, aut salis alcati nitrosi, quod cum Sulphuris quid contineat, Oleo firmiter adhaeret, quod id ipsum secum rapit, dum in calcinatione deflagrat, aut menstruo mediante extrahitur; atque Sulphuris hac extractio a sale praedicto promovetur: cum etenim in humore aqueo dissolvi incipit Sal, secum copiosius trahit Sulphur, ideoque Sennoe uncia semis in aquae uncis sex, cum Tartari drachma una infusa, colatura erit magis purgativa, quam si Tartarum non adderetur. Atque hac de Aloe, Colocynthide, Opio, Absinthio, Carduo benedicto, &c. quorum omnium sal pure fixum, terra firmiter adhaeret, antequam fluorem adipiscitur in fermentatione, aut per lixiviationem e cineribus extrahatur.

From the premisses seriously considered, these consequences do manifestly result; 1. that it is necessary to distinguish betwixt *hot* and *corrosive*, as betwixt *hot* and *cold*. 2. That the intense heat of waters that boyl in fountains, ought not alwayes to be attributed unto fire (as said Dr. Andrew Baccius) but rather to the action of a corrosive body, as of *Nitre*, *Vitriol*, &c. being not far distant from the fountain.

[*Obj.* 1. Some will possibly object, 1. If there were any *sale Ammoniack* mixed with the water of *Moffet-Well*s, without all doubt, it would affix it self with the *Nitre*, unto the white and salinous stones, from which it might afterwards be separated by sublimation, seing it is by nature most volatile, but so it is, that nothing can be separated from

from them by sublimation, as our own experience did testifie. To this we answer, 1. that a very little quantity of *salt Amoniack*, produceth the fore-mentioned precipitation, as appeareth in every precipitation. 2. The *salt amoniack* is fixed, by the fixed salt of the *Nitre* and stones, so that it cannot be separated from them by sublimation; and this is most probable, if it be considered, that *salt ammoniack* is commonly fixed, when it is by stratification calcined with the poulder of *Lime*: For then the fixed salt of the *Coals*, which hath by calcination affixed it self unto the earth and fixed salt of the stones, doth fix the *salt amoniack*, and rendereth it dissolvable into an Oyl (improperly so called, because not sulphureous) by deliquation. 3. Or rather (because most probable) the volatile *salt ammoniack*, being dissolved in a strange humide and aqueous body (*viz.* the water of the Wells) doth evanish with the evaporating Sulphur: for, in every distillation (which evaporation doth still proceed) the volatile salt doth follow the Sulphur, and exilleth after it, as was already said in the *Preface*.

2. If the water were sufficiently impregnated with *Nitre*, for the dissolving of *Antimony*, the water of the Wells would not be sweet to the taste, as they are: for a very great quantity of *Nitre* would scarcely be sufficient for the operation. It is answered, that the water doth almost totally loss its saltiness, by its action upon the *Antimony*, and afterwards it deposeth the relicts of
its

its salt upon the stones, as appeareth from what hath been said. No man will question the truth of this, if these two experiments be considered;

1. That *Aqua-fortis* loseth much of its strength by operating upon *Iron*. 2. The Oyls of *Tartar* and *Vitriol* (which are most salt, sharp and corrosive) when mixed (as in the composition of *vitriolated Tartar*) do produce a liquor altogether insipide: for we extracted such an one from them, when we were coagulating *vitriolated Tartar*.

3. Others will possibly say, that this is a new and unheard-of manner of anatomizing, a mineral water: for it should have been examined by distillation, evaporation, calcination, &c. that thereby the foresaid assertion might have been proven. I answer, 1. there is here no need of distillation: for the water of the Wells is only impregnated with *Nitre* and the putide Sulphur of *Antimony*; the former whereof is proven by nature, seeing the *Nitre* doth affix it self to the rocks, by which the water descendeth, and the latter is already shown by an experiment. 2. Seeing our *Spagyricall art* (the most excellent imitatrix of *nature*) and *nature* her self, do excellently and evidently prove the assertion, operations should not be multiplied, without necessity. 3. The distilling of the water would prove a frustraneous action; 1. because it would require a vast quantity of water, for to acquire but a very little of the salt: for there is but little of it contained in the water, as appeareth by the rocks; for there is but

very little salt, as yet, attached unto them. 2. Unless the vessels were *hermetically* sealed, the water that would extill, would be destitue of all taste and smell; because its Sulphur doth constantly evanish, so that in a short time, it leaveth it quite destitute of smell, although it be kept in a vessel most closely stopped with a cork.

Concerning the use of the water.

EXperience having taught, that many have gotten much good by the use of this water, and that others have reaped more harm, and finished their miserable lives soon after their making use of it; the difficulty of describing its virtues, is beyond controversie, as also that it were a most difficult task, to shew who should make use of it, and at what time; because some have been bettered (yet cured) by it at one time, and wronged at another, when they have addressed themselves unto it, for prevention only of that disease, which had once been cured by it. Therefore I shall only propose some general rules, concerning its internal and external use: For no man can prescribe to all sorts of persons particular rules, for using it internally, unless he had been an eye-witness for two or three years, to its different operations, upon persons of different constitutions. Now the rules are these,

1. The water of the Wells of *Moffet* would be most warily used, seeing it doth sometimes produce as sad symptoms, as *Antimony* it self doth.

2. No

2. No man should use this water internally, who doth not (by vomiting, urine, or stool) evacuate as much as he doth drink, especially if he be *hydropick*.

3. It conduceth to the cure of almost all *Ulcers* and external diseases, and pains of the joynts, &c. when it is only externally applied.

4. It is very dretick; and the water of the neather-well, more than that of the upper, because it is more salinous, as was proven.

5. In the autumnal months, it is enriched with the most and best of its strength and virtues, the earth being at that time most dry: for, in the winter and spring times, it is debilitat and vitiat by rain.

6. Such as are of a more robust constitution than others, would take an antimonial vomitory, for lousing of their humors, before they make use of the water: for then the water will be of a more facile operation, though in a lesser dose.

7. Since the printing of this little Treatise in *Latine*, it is by many, more confidently reported, than ever, that this water hath often made the barren womb fruitfull; which we cannot contradict, having been greatly convinced of its certainty, by the effects which the water hath produced in some persons, which have been afflicted with that lamentable infirmity. And being rationally induced to believe, that such a putide water will prove an excellent *hysterick* (the most part whereof are such) for purging out all impurities. (the most or-

dinary *remoras* of generation) from the *microscopical* habitation of man.

8. Experience hath testified to many, that it is good for the *Scurvy*, being used both externally and internally; and *paralytick* persons also have been much bettered by using it, after the same manner.

9. This water deleteth the spots of cloath, when it is washed with it.

Such as are, and ever have been, prejudicat against *Antimony*, and its use, will (no doubt) also condemn the using of this antimonial water, though composed by God himself, the Former of all things, and the best *Chymist*, who hath created every thing for the benefit of man. Therefore I will mention, and answer, some expressions of D. A.--*Parisiis Neapolitanus, in rationibus suis contra Antimonii, cum crudi, tum preparati, usum*, which he subjoyneth to his *Consilia medicinalia de conservanda sanitate*, printed and published by him at *Edinburgh*, anno. 1620. He writeth thus, cap. 2. *Andernacus, Antimonium refert inter fossilia, quæ primordia generationis suæ ex Aqua ducunt, & inter illa, ei principalem locum assignat: quæ sententia nobis etiam placet.*---*Plus aquea natura in stibio reperiri quam terrea, convinci potest ex notis boni stibii, quas Avicenna, lib. canonis sui, c. 7. tract. 2. refert.*

Cap. 4. *Ab Avicenna stibii frigidum scribitur in primo, & siccum in secundo gradu.*---*Ab Jacobo Graminio, in tractatu suo de Antimonio, rectum*

rectum adhuc ad tertium completum frigiditatis ordinem refertur, quod ipsum & illius vires probant.---Miscetur cum Minio & Cerussa, ad consolidanda ulcuscula, a comburente flamma excisata.---Guilielmus Varignana, in secretis suis, pulverem ejus Cancro depascenti ac phagedanico ulceri inspargit.---Tantum de temperamento & facultatibus crudis tibi, nunc ad adustum, preparatumur, sermo pertranseat. Collocatur autem a nonnullis doctissimis viris, quomodocunq; calcinatum, in quarto caliditatis & siccitatis gradu. Ratio est, quia ex mente illius aureoli Paracelsi Chymicorum principis (docente Arnaldo de Villanova, in Rosario suo philosophico) quae calcinantur & uruntur, ad quartum caliditatis gradum perducuntur. Actiones etiam seu operationes ejus, nobis adstipulantur. Quia omnibus putridis & gangrenosis ulceribus, majorem in modum prodest, quod citra insignem ac prevalentem siccitatem & caliditatem fieri nequit.

This Author relateth only the opinions of others (and sometime from the second hand, as in that of Paracelsus his opinion, docente Arnaldo, &c.) and then assenteth to what he conceiveth most probable, yet without giving any good reason for their asserting, or his own assenting. It being the most difficult task which a naturalist can take in hand, to determine the temperatures of bodies, either as to their *qualities* or their *degrees*; I will only humbly offer my opinion, with as much reason as I can, in these two assertions.

1. *Antimony* containeth much earth and salt, from which it (and all other bodies) hath its solidity and ponderosity.

2. *Antimony* containeth much inflammable Sulphur (from which it, and the glass made of it, have their colours) as is most evident in its calcination, either alone, or with *Nitre*.

From these, and what hath been formerly said, concerning the natures of Sulphur and Salt, let each person infer what they please, concerning the temperature of *Antimony*. For my own part, I am of opinion, that the vomitive and purgative faculties of *Antimony*, do not proceed from its temperament (seeing there are many other bodies of the same temperature with it, according to Authors, which have usurped this determining power, which yet have none of these faculties of *Antimony*) but from its natural form, which the Creator of all things hath bestowed upon it.

As for that opinion of this Author, viz. that crude or natural *Antimony*, being cold in the third degree, and dry in the second, is by burning or preparing it any way, so metamorphosed, that it becometh hot and dry in the fourth degree (which he foundeth upon the opinion of others, and so infer a reason of his own) I cannot sufficiently admire it; because I conceive it to be without the reach of any created being, to induce the fourth degree of any of the first qualities (which are by Philosophers attributed to the pure Elements only) upon any composed body, such as is *Antimony*;

mony; far less at all to alter their essential properties (such as are heat, cold, &c.) which proceed from their natural forms, without destroying the natural forms, and producing in them, not only new forms, but also new properties proceeding from them, at least the destruction of their former properties, as when *Salt, Sea-ware, &c.* are converted into *Glass*. But here you have a *Philosopher* and *Physician* asserting the contrary concerning *Antimony*, to which he assigneth the same properties, before and after its preparation, which he affirmeth to operate so strongly upon it, that it altereth its first quality, *cold in the third degree*, beyond contrariety, to hot in the fourth degree.

In his fifth Chapter he labourerth to prove *Quod Antimonium neq; crudum, neq; preparatum, intra corpus ullo pacto adhiberi debeat*. And his only argument is this, *Si Antimonium tota sua substantia est venenum, omnibus modis erit humana natura adversarium. Ergo Antimonium ut cetera venena destruere naturam nostram, absque controversia patet. Venenum tribus rationibus esse ostenditur. 1. Per similitudinem ejus cum Plumbo. 2. Per malignitatem ejus. 3. Per imperfectam correctionem ejus.*

Similitudo & cognatio ei cum Plumbo (quod inter venena annumerandum esse, neminem ignorare censeo) maxima est.

Quod ad malignitatem attinet, odorem emittit virulentum ac insuavem (dum crematur) auripigmenti venosam exhalationem proxime repræ-

rans. Hinc ab eo fumo, dum calcinatur, tanquam à presentissimo veneno, Chymici cavere, & naves diligenter obsruere jubent. Imperfecta est ejus correctio: quia Petrus Matthiolus, super, 5. cap. Dioscoridis, ad tollendam ejus venenatam facultatem in coctione, Chrysocollam seu Boracem ei misceri jubet, vel Theriacam: etiam Cornu Monocerotis, & species Diamoschi, atque id genus alia alexipharmaca, ei commisceri ab aliis jubentur. Taceo jam purgationes, convulsiones, atque alia gravissima symptomata, eo utentibus incidentia.----- Stimmi non aliquem proprium & discretum humorem purgat, (sed promiscue omnes humores per alvum exturbat. Ergo similitudine essentia seu formæ non purgabit, ut reliqua medicamenta qua formæ similitudine purgant proprios, & discretos humores, secundum Hippocratem, lib. de natura humana. Asseveramus itaque Antimonium calcinatum, exitiosa sua (natura humana & præsertim cordi) tum substantia, tum etiam qualitatibus, molestissime naturam, irritantibus, communi quadam traditione, non solum pravos, sed etiam optimos expellere succos.--- sit ergo hac purgatio, non per se, sed ex accidente.----- Concludimus præterea, crudum omnino non purgare: calcinatum vero, non nisi per adhaerentem, & vi ignis exaltatam potentiam veneficam, commoventem spiritus, & humores in toto corpore violenter concitantem; itaque neque crudum, neque quomodocunqueustum, intra corpus sumi debere, cum venenum sit, & statim, vel

non

non ita multo post ipsius receptionem gravissima
apparet symptomata, quae hominem in extremam
deturbans perniciem.

I will not here molest the Reader with a tedious translation of these words, but only reduce them unto these assertions, to which I shall return particular answers.

1. Antimony in its whole substance is poyson, and therefore ought not to be made use of by men, whose natures (as other poysons do) it destroyeth.

2. It is poyson because of its similitude to lead, which (as all men know) ought to be reckoned amongst poysons.

3. It is poyson, because of its malignity: For whilst it is a calcining, it emitteeth a virulent and venomous smell and exhalation, like that oforpiment, from which (as from present poyson) Chymists do advise to preserve the Nose.

4. It is poyson, because of its imperfect operation: for Petrus Matthiolus upon the fifth Chapter of Dioscorides, bids boyl it with Borax to take away its venomous faculty, or add Treacle to it; also the horn of the Unicorn, and species Diamoschi, and such like alexipharmicks are by others advised to be mixed with it.

5. The purgations, convulsions, and other sad symptoms, which are incident unto the users of it, declare it to be poyson; which incontinently, or not long after the receiving of it, redacteth man to extreme ruine.

6. Antimony

6. *Antimony* purgeth not any particular humor, but promiscuously all, both good and bad; as other purgatives do not, which purge by similitude of their essence or form, and do therefore purge their proper humors, according to Hippocrates, in his book de natura humana.

7. *Calcined Antimony*, by its whole substance and faculties (which are most destructive of humane nature, and most inimical to the heart in particular) purgeth not at all of its self, but accidentally: for it having most fearfully awaked the humors, and irritated the expultrix faculty, they are confusedly expelled.

8. *Crude or natural and unprepared Antimony*, purgeth not at all.

9. *Calcined Antimony* purgeth not, but by an adherent, and by the strength of fire, exalted venomous power, which violently commoveth all the spirits and humor of the body.

As to the first, which consisteth of an antecedent and consequent. By the antecedent, he will have *Antimony* to be one of those venomous things, *que corrumpunt complexionem humanam, non sola qualitate, sed propriatate*, which is the only definition competent unto such as *Sennertus* termeth *Venena praesentanea* (as *Arsenick*) and which we do deny at all to belong unto *Antimony*. 1. Because crude *Antimony* doth produce in man, none of those lamentable accidents which other venomous things do, as vomiting (as this Author confesseth) purging, convulsions, &c.

before

before it be prepared by art. 2. *Antimony* prepared (whereby its vomitive and purgative faculties are awaked) doth (when skilfully prepared and exhibited) handsomly evacuate bad humors, which, if they should be retained, would prove most corruptive of the humane complexion.

3. *Antimony Diaphoretick* (which is neither vomitive nor purgative) doth excellently expell by sweating, all venenosities.

4. If *Venenum* be defined (as *Sennerius* also doth) *id omne quod aptum est nobis vehementer nocere, per occultam agendi rationem*, it is undeniable that *Antimony* is one of those: as also *Wine* (immoderately and unseasonably taken) *Saffran*, and what not. Yea, *Sennerius* relateth a story of a Merchant (*Medicina pract. lib. 6. part 5. cap. 1. de natura veneni*) who did eat at supper *flesh* wherewith much *Saffran* was boiled, and immediately thereafter, he had almost died through laughter. It were superfluous to add more to this purpose, seeing the practice of all Physicians) who have any knowledge of *Chymistry*) doth demonstrat, that Antimonial medications (externally or internally used) do operate as innocently, as any others.

As to the second (which is a most confident assertion, destitute of probation, and most unbecoming a Physician, who for each of his assertions, ought to have *in promptu causam*) I do first deny *Lead* to be poyson, in any other respect, than I have conceded *Antimony*, *Wine* and *Saffran* to be such, in the fourth answer. And secondly, I deny the consequence:

consequence: for similitude of external formes, can never infer a similitude of internals, especially when the effects flowing from both the internal formes, are most discrepant, as in *Antimony* and *Lead*.

For the third, that it *emitteth a virulent and venomous smell and exhalation, like that of orpament, from which (as from present payson) Chymists do advise to preserve the nose.* I answer first, that neither of these exhalations are paysonous: for I have often breathed the air, that was vitiat with both (and ofttest that of *Orpament*, yea, of *Arsenick* itself, when burned) yet was never prejudiced.

2. Though it were true, that the exhalation of *Antimony* is paysonous, doth it argue that *Antimony*, after calcination (whereby it is freed from that paysonous exhalation) is still venomous? It doth certainly demonstrat the contrary (as in *Antimony Diaphoretick*) or at least, that its venenosity is much diminished, as in *Crocus Metallorum*. Moreover, is not the flesh of *vipers*, an excellent *Alexipharmick* or antidot against payson, when the head and gall (wherein its venom doth reside, according to *Schroderus*) are separated from it?

To the fourth, viz. that it is imperfectly corrected by *Borax*, *Treacle*, &c.) I answer, 1. this Author should have evinced by reason, that none of those mentioned *Alexipharmicks*, were capable to correct the venenosity of *Antimony*, and not have given his *nudam assertionem* for it. 2. Although he and his informers could never attain the skill

skill of preparing it, so as that it would not produce any of those sad symptoms; should others who have attained it, be by him, or any, prohibited to use it; when frequent experience hath discovered unto them the innocency and usefulness of its operation.

As for the fifth, *the sad and lamentable symptoms which it produceth*. I answer, that I never found the like, save once, notwithstanding of which I have still made use of it, with good success; and therefore every one would make use of it, as he shall find encouragment, from its peaceable behaviour.

Concerning the sixth (*viz. that it purgeth not elective, as they say, any peculiar humor, as others do, viz. Bile, Melancholy, &c. but promiscuously all, both good and bad*) I answer, 1. that it is well asserted, but ill proven. 2. I will not contradict that opinion so generally received by the learned, that some medicaments are *Cholagoga*, other *Melanagoga*, &c. but only declare, that though I be by experience convinced, that some have a natural aptitude to purge *Bile* more then any other humor, and another sort for purging of *Melancholy*, &c. Yet whensoever a portion composed of either sort is exhibited to any person, it doth promiscuously evacuate a part of each of those humors which it encountereth; and this is undeniable by any who have been diligent observers of the *egressa*, which (in valetudinary persons) is as necessary, as the noticing of the *ingesta*. 3. The assertion may be

be denied: for I have known an Antimonial potion evacuate a pound of *Bilis perracea*, which was the only cause of a constant vomiting two or three hours after meat, all that the person had taken at the last meal; as also another pound of *Bilis Viscellina*, mixed with *pituita salsa*; wherewith the internal wrinkled superfiſe of the ſtomach, being, as it were, daubed, it and the other humor occasioned an indigeſtion of the meat: and in others produceth either a *lienſteria* (when meat is evacuated by ſtool, without being at all altered by the ſtomach, which being ſlippery, cannot retain it, as when its wrinkles were not daubed with the humor) or *Coelica paſſio*, wherein meat is excerned after being but a little altered.

Seventhly, he affirmeth, that *Antimony purgeth not of it ſelf (as other purgatives do) but accidentally*. This is all one as if he had ſaid, that *Antimony* purgeth, as drink, fruits, &c. (which are not purgative of themſelves) do, when a perſon hath taken a ſurſet of them, whereby nature being oppreſſed, it doth impetuoſly expell them and other humors, both good and bad, with them. The falſity of this is ſo palpable, that it were folly to ſet about the refuting of it.

The eighth is an irrefragable truth.

The ninth doth not well expreſs the Authors meaning, which I conceive was (at leaſt ſhould have been) this, that ſo long as the natural miſſion of the conſtituent parts of *Antimony*, is not altered by fire, the vomitive and purgative faculties of

of it, do not discover themselves, but so soon as the Sulphur is freed in some measure from the bonds of salt, by which it was formerly fettered, it doth communicat it self unto the affused liquor, and draweth along with it the nitrous volatile salt, in both which resideth the vomitive and purgative virtues of *Antimony*.

I shall add (for a *Colophon*) the reason why the foresaid water worketh not, but when it is taken by pounds, viz. because it is impregnate only with the putide Sulphur of *Antimony*: for if it were enriched with the Earth, volatile salt, and best Sulphur (that is, such as is not become putide, by recrudescing in fermentation) of *Antimony*, as is *Spanish Wine*, wherein the *Saffran* of *Metals* hath been infused, it would, by ounces (as this doth) commove and purge out the humors, and contain such a matter as would be precipitable by some liquor: for the earth of *Antimony* (wherein do exist the Sulphur and volatile salt, which commove and purge out the humors) doth by precipitation separat it self from *Spanish Wine*, when some drops of *Aqua-fortis* are mixed with it. But the water of the Wells containeth no precipitable matter. Now that the vomitive and purgative qualities of *Antimony*, existeth in the Sulphur and volatile salt, is hence proven, that *Diaphoretick Antimony* (which is *Antimony* that is totally deprived of Sulphur and volatile salt, by calcination) is neither purgative nor vomitive; and the sublimed flowers of *Antimony*, are most purgative and

and vomitive. And hence it appeareth, that in *Diaphoretick Antimony*, the virtue of *Antimony*, which attracteth and purgeth humors, is not imprisoned, but banished, by *Nitre*.

Courteous Reader these are the things which we learned from the operations of *Art* and *Nature*; but if any shall (from the same or like principles) prove, that the fore-mentioned water runneth through *Brimstone*, or *Visriol*, &c. we shall most willingly acknowledge an error; in the interim, *In magis voluisse sat est.*—That is,

*In things of great excellency,
Let the endeavour satisfy.*

And upon this account, we will plead for pardon: for there is no man

ΑΠΑΝΤΑ ΣΟΦΟΣ

I. E.

Omniscient.

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APPENDIX,
 Concerning the saltness of the
 SEA, &c.

THat the truth of what hath been said may shine more clearly, we must recall some opinions of D. John French, who in the 2. Chapter and 22. page of his Book, entituled, *the Yorkshire Span*, asserteth, That there can no other reason be given for hot springs, than the fire which burns in the very cavities and caverns of them; the cavities themselves consisting of (or rather being replenished with) a Bituminous matter. For Bitumen, and those things which are made of it, being kindled, burn in water (as Camphire also doth) a very long time; which could not be, unless it were fed by the moisture of the water, which it did attract and convert into its own nature. And in the 14. Chapter, concerning the *puddle Sulphur well*, about the middle of

page

page 107. The stinking odour thereof, I suppose, is caused from the vapours of the burning Bitumen; and adust terreneſs mixt therewith, which lie not far from the head of the Well. And page 106. the ſaltness of the Sea proceedeth from the Salt of the burning Bitumen, which is dissolved in the water, that ran through these veins of the earth, wherein it was; which (page 106. and 107.) he confirmeth by the example of the Lake, called *Asphaltsites*. And in the beginning of the 108. page, he asserteth, That it cannot be rationally conceived, that the whole Sea received all its salt into its self at one time, after a natural way, and therefore being (such a great body, must become saltish by little and little, even insensibly. The falsehood of these opinions will manifestly appear by considering,

1. That it is more like an untruth than a truth, that there is a perpetual subterranean fire (of burning Bitumen) which doth naturally heat the waters. 2. Because it is not probable, that there was ever so much Bitumen in any subterranean place, as would, by its flame, have heated the waters, which do every where spring out of hot fountains. 3. Neither is it probable, that there is so much air in any cavity of the earth, as would necessarily (for to avoid the penetration of dimensions) give place to so much flame, as would heat so much water. 4. If the inflamed Bitumen, did produce the foresaid heat, then the fire would change its place, when it followeth its aliment, and

so the water of the fountains would not be alwaies impregnat with the same degree of heat ; because the fire which heateth them, would not alwaies be equidistant from the fountains. In the 25. page of the forementioned Book, the Author answereth to this argument, saying, *that flame is nourished two ways ; 1. When it followeth its food, as in the burning of wood. 2. When the food followeth the flame, as doth Oyl in a Lamp : and thus (saith he) is the flame of the Bitumen nourished ; neither is this falsified by the flame of Brimstone, which followeth the mater. For (saith he) the Bitumen is melted by the great heat, and so it followeth the flame, and continueth the flame in the same place.* But I reply, 1. That flame doth alwaies follow its food, neither doth Oyl follow the flame in a Lamp ; but one part of the Oyl being continuous to another, doth follow it, whilst it is a consuming by the flame. That you may the better understand this, you would take notice of the reason, why some sulphureous bodies (as *Camphire, Turpentine, &c.*) do of themselves take and conserve flame ; when others (as *Tallow, Bees-wax, Oyl of Olives, &c.*) do neither take nor conserve it, but by the help of others, as of *Linnen cloath, Paper, Rubes, &c.* The cause of these things we conceive, yea affirm, to be this, that the first sort are bodies which contain much *Salt* (for they are very sapide) which doth still detain the *Sulphur*, even when it is converted into flame ; and the last sort are bodies almost void of *Salt* (because insi-

pide almost) which do not take *flame*; because they cannot conserve it, unless they be associat to the *Sulphur* of another body (containing much *Salt*, which detaineth its proper *Sulphur*) and so take *flame* with it. From these things it doth appear, that *flame* doth alwaies follow its food; especially seing the threeds of the *Candle* and *Lamp*, do wast and consume by the *flame*, whilst it followeth the *Sulphur* of the threeds, which is its food, whose consumption is retarded by the *Tallow* in the *Candle*, and *Oyl* in the *Lamp*, which do nourish it. 2. It is not probable, that all the *Bitumen* is liquified, 1. Because the *flame* of the kindled *Bitumen*, liquifieth only the parts which are nearest to its self, as happeneth in a *Candle*, *Brimstone*, *red Wax*, &c. 2. Whosoever will say, that the *Bitumen* followeth the *flame*, because it is melted, he must also confess, that there is some other fire beneath or above the *Bitumen*, which melteth it; and this would infer the absurd *progress in infinitum*. 3. Nor can the *flame* of the kindled *Bitumen*, by heating the caverns of the earth, liquifie the rest of the *Bitumen*: because (as was said) it is not probable, that there is a place in the bowels of the earth, which would contain so much *flame*, as would, by its heat, liquifie all the *Bitumen* which is within four, five, or six miles unto it; the contrary whereof must of necessity, be confessed, by him who will assert, that the *flame* of the kindled *Bitumen*, changeth not its place, by following its food.

2. It is most false, that *Bitumen*, *Camphire*, and such like, which burn in water, do retain their *flame* longer, than if they were out of the water, because they convert it into their own nature, by which means it becometh food to the *flame*; but the cause of their longer burning in the water, is rather, because their external superficies (the uppermost only excepted) are humected by the water, which prohibiteth the *flame* to seize upon all their external parts (as happeneth when they are inflamed out of the water) and so they burn longer; because a few only of their parts are inflamed. No man, who will be at the pains to put a little inflamed *Camphire* into water, will question the truth of this: For he will see the *flame* excavat the *Camphire*, and at length extinguished, when it penetrateth unto the external parts, into which the water hath insinuat it self.

3. Although the *flame* of *Bitumen* were in the veins of the earth, yet its vapors could not communicat any putide smell unto the water. 1. Because of the fore-mentioned reasons, when we wrote of inflamed *Brimstone*. 2. Because they contain no terrestrial adust matter: For, 1. no such matter (capable to communicat such a smell) doth ascend from any body whilst it is a destilling, and far less therefore whilst it is a burning. 2. Because *smell* proceedeth only from *Sulphur*; whereof, such earth (which did pass through the fire) would be most destitute. It were therefore more consonant to reason and truth to say, that the pu-

ride smell of the fountain (of which this Author writeth) doth proceed from the *Sulphur* of *Bitumen* (or of any other thing) which is recrudes-
cing and evaporating, whilst it is a fermenting.

4. Seing the *Sea* is a great body, it is more probable, that all its *salt* was concreated with it, in the very instant of its creation, than that its salt-
ness was, by little and little, communicated unto it by the *salt* of the *Bitumen*, which was burned in the caverns of the earth. For, 1. seing, *sea-salt* (which *nature* coagulateth in many places, as at the *Rochel* in *France*, and in many places of *Spain*) is such an usefull and necessary thing for man, it is incredible, that God (who created so great a variety of creatures for the use of man) did not, at the beginning, creat it with the rest, than many of which it is more usefull. 2. Seing every pound of *Sea-water* containeth about a drachm of *salt*; and the *Asphaltick Bitumen* (which is found upon the shore of the *Lake Asphaltites*, which is called eminently saltish) scarcely containeth any salt-
ness that's perceptible by the taste; it is probable, that a mass of *Bitumen* (though calcined, and equiponderating the terrestrial *Globe*, could not communicat so great and perceptible salt-ness, to so great a body as the *Sea* is. Moreover, the ashes of the *Asphaltick Bitumen* (from which the *Sulphur* is separated by burning) do scarcely contain any salt-
ness; for it is a sulphureous body, which, of it self, will hardly take or retain *flame*, unless it be associat to the *Sulphur* of burning coals. 3. Seing
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it is most probable, that the saltness of the *Asphallick lake* proceedeth not from the *Bitumen* which is not dissolved in the water, but swimmeth only above upon it, and is thereby at length ejected upon the shore; it is more probable, that neither the saltness of the *Ocean* is communicated unto us by the *Bitumen*, seeing it containeth no such matter. 1. Seing, that the *Lake Asphaltites* is in the same place, where were *Sodom*, *Gomorrath*, and the valley which was full of bituminous, or *Symie* (*Genes. 14. 10.*) and salt. See the *English Annotations on Joshua, 15. 62.*) p. 2. Seing then the foresaid Cities and v. lly were calined (or incinerat) by *Fire* and *Brimstone* (which we proved to be most saltish) which came down from heaven. *Genes. 19. 24, 25.* 3. Seing the ashes of all calined bodies, do contain a fixed salt, which naturally attracteth the humide air, that so it may be dissolved by deliquation; without all doubt, the great saltness of that *Lake* (which is called eminently saltish) proceedeth only from the ashes of those things which were then calined; whose salt did attract the humide air, which did convert it into a liquor, which was afterwards augmented by *Rain* and the *Rivulets*, which ran that way. So that it is probable, that that water is saltish for no other cause; seeing there are many great *Lakes*, whose sweet waters do penetrat, as far into the bowels of the earth, as the waters of the *Asphallick lake*, and many bayes of the *Sea* do. Moreover, this continual attraction of the air (be-

cause of the *Salino-sulphureous spirit*, that is diffused through it) produceth in the air, a perpetual circulation of *sulphureous* and *salinous spirits* (for the fixed *salt* of the water attracteth the *salino-sulphureous spirit*; and the more volatile parts, whether *salinous* or *sulphureous*, which are dissolved in the strange humide body, do constantly attempt an avolation) which rendereth the *birds* valetudinary, when they transvolate the *Lake*; and at length killeth them. And it is the very like circulation of *spirits*, which causeth persons (who are not accustomed to navigation upon the *Sea*) nauseate or vomit, when these *salinous* and *sulphureous spirits*, which are in their circulatory motion, do enter the body with the air. Now that there is such a *salino-sulphureous spirit* (which is the *universal* (yet subservient to the *first*) cause of generation) really existing in nature, is sufficiently proven by these four not ordinary arguments.

1. The *earth* which was within the limits of the *flux* and *reflux* of the *Sea*, remaineth barren for a time, after that the *Sea* deserteth it; viz. untill that *Salino-sulphureous spirit* have insinuated it self into it: for whensoever this cometh to pass, then all sorts of *vegetables* (whose seeds or roots, were sown or planted there, or brought thither by the *rain*, from circum-jacent places) begin to germinate in it.

2. It is the very *Salino-sulphureous spirit*, which insinuateth it self into the *earth* that is at-

most

most barren; and maketh it more fertile, when it is not manured for two or three years: and the penetration of this *spirit* into the ground, is promoted by the relicts of its proper *Salt*, which attracteth it. But when earth, that hath not been manured for a long time, becometh barren (which happeneth sometimes, as I was informed by one skilfull in *Agriculture*) that ought to be ascribed unto the super-abundance of *spirits* (which doth often impede generation: for a *woman* immediatly before her *menstrual flux*, doth seldom conceive. For which look the second *Thes.* that was disputed in *medicinal School* at *Paris*, Nov. 23. 1656.) or to some other disease known, perchance, to *Husband-men*.

3. It is the very *Salino-sulphureous spirit*, which is diffused through the air, that maketh *Heathy*, wilde, and almost barren, places, more fertile, when it is attracted by the *Lime* which they cast upon the ground; for, the fixed *Salt* of the *soils*, which is united to the earth of the stones, by calcination (when the *Lime* is a making) promoteth the attraction of the foresaid *spirit*; and so the earth is rendred more apt for the generation of *Vegetables*, which require more *Salinous* and *sulphureous spirits*.

4. In the *Iles* of *Orkney*, the attraction of this *salino sulphureous spirit*, is greatly promoted by the *salt* of the *Sea-ware*, and *ashes* of *Peats*, where-with the inhabitants are accustomed to dung their lands, which are also much fatned by the abundant *Sulphur* of the same vegetable. Here

Here I will acquaint you with an observation, which by many reiterated experiments, I know to be most certain: And it is this, when *Logh-leeches* are applied to the inhabitants of *Orkney*, they fall off sooner, and suck less blood, than when they are applied to such as live in the South-parts of the Kingdom. I conceive the reason of this to be, the saltness and acrimony of their blood, which maketh those Animals, constantly to desist, long ere they be full of blood; and this acrimony or saltness, doth (without all doubt) proceed from the salt of the forementioned *Sea-ware*, which causeth the *Barley* and *Oats* (the only *Corns* which grow there) to be more salt than in other places, where the earth is not dunged with the foresaid *vegetables* and *ashes*. This also, with the much eating of salted *Fishes* by the vulgar there, is the cause why multitudes of them, are molested with *Ulcers* of all sorts, *Cancers* especially. I do acknowledge, that elsewhere, *Logh-leeches* will sometimes fall off ere they be full: But the cause of this is, the exuberancy of blood, which cometh so impetuously upon them, that it is like to choke them, for which they desist from sucking; as children ordinarily do, when the *Nurse* her milk doth molest them, after the same manner. For the same reason also, the most part of strangers, who go to reside in the *Isles* of *Orkney*, are at first molested with a *Diarrhea* or *Flux*; the acrimonious saltness of the bread and drink, irritating the expulser faculty, more than ordinary, untill it

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be accustomed with the same. This also is the reason, why the inhabitants there (for the most part) do require a far stronger dose, of any purgative or vomitive medicine, than those who live in the *South*; because their expultrix faculty, being accustomed with the acrimony of bread and drink, which will prove purgative unto others, who are not accustomed unto it, requireth a stronger medicinal exciter.

We thought it not unworthy of our pains, to offer unto the consideration of *Naturalists* and *Mathematicians*, our opinion concerning the *flux* and *reflux* of the *Sea*, before that we should have put a close to these things concerning the *Sea*; and it is thus, seeing the *Moon* doth by her presence refrigerat all sublunary bodies, especially the *air*; and seeing fixed *salt* doth attract the cold *air* sooner and better than the hot, we conceive, that the fixed *salt*, which was concreated with the *Sea*, and dissolved in its water, doth abundantly attract the *air* that was cooled (or so disposed by some other quality, that it might be the more easily attracted by the *salt*) by the presence of the *Moon*, or of the opposit point in its *sphere*; and so the quantity of the water is greatly augmented, and the water is again by little and little converted into *air*, when the *air* loseth its foresaid quality, by the departure of the *Moon*, or of its opposit point, from the *meridian*. This opinion is sufficiently proven by this argument; viz. that *Sea-stones*, which are most saltish, do attract the *air*, when

it is altered, as was said, and do become so wet, that water droppeth down from them: But when the *air* loseth its foresaid alteration, then the *water* is again converted into *air*, and the stones become dry like others. Moreover, this humectation of the stones, doth, as it were, observe the set times of the *flux* and *reflux* of the *Sea*. It is true, that in very moist weather, these stones will be constantly wet; because of the frigidity of the *air*: but yet they are more wet when the *Moon* is in the *meridian*, than at other times; so that this doth not in the least render our opinion improbable.

From what hath been said, it may probably be concluded, 1. that the *Sea-water* is not so saltish, when the *Tide* is at the height, as when it is a *Low-water*; because then its *salt* is dissolved in a greater quantity of water. 2. That *Sea-water*, taken from the *Ocean*, would observe the set times of the increase and decrease of the *Sea*, if it were put into a *Weather-glass* (or a glass of the same fashion, *hermetically* sealed) seing it is impregnated with an active principle (*Salt*) whereof common water is destitute, which nevertheless doth alter, according to the mutations of the *air*, by occupying of a larger place at sometimes, and a lesser at another.

Having, since the publication of this opinion in *Latine*, more seriously considered it, we conceive it needfull now to declare, that we do not believe this most real transmutation of *air* and *water* to be

be the adequat and only cause of the *Ebbing* and *Flowing* of the *Sea*, but that it is not one of the least considerable causes of this most admirable effect, the full and exact knowledge of whose causes, it seemeth the *Almighty* hath reserved unto himself.

These things we do freely offer unto all, to be censured according to the difference of opinions concerning them.

Some Spagyricall operations of nature, added in stead of a Conclusion.

THe first is *Destillation*. For vapors being elevated into the second region of the *air* (which is cold, as the head of a *Still*) are there condensed, and do from thence fall down in drops.

2. *Sublimation* (as it were) of *Snow*.

3. *ChrySTALLIZATION* of *Sal-Gemma*, *Ice* and *Hail*.

4. *Coagulation* of *Sea-salt*, by the heat of the *Sun*.

5. *Calcination* of *Horse-bones* (and of other animals, which die in the fields) by the solar rayes.

6. *Filtration* of water through the veins of the earth: for it is most limpid which cometh out of founrains.

7. *Dulcification* of *Sea-water*, whilst it passeth through the bowels of the earth: for it is the very same (being sweetned) which springeth in founrains, *Ecclesiastes*, 1. 7.

8. *Circulation*

8. *Circulation of Salino-Sulphureous Spirits* in the surface of the *Sea*, of which before. The *transmutation* of the *Elements* also, is a kind of *circulation*.

9. *Salification of Nitre*, in the concavities of *Caves* and *Vaults*.

10. *Fermentation*, which doth always precede *generation*: for there is no *corruption*, without an antecedent *fermentation*, as appeareth from the premises.

11. *Solution of Minerals* by water, which is impregnate with some corrosive *salt*, as was said concerning *Antimony*, in the description of *Moffet-Well*.

12. *Conflagration of Thunder*.

13. *Aurification* in the veins of the earth, which many *Spagiricks* have, in vain, essayed to imitate upon its surface.

Therefore the *Spagyricall Art*, is a most excellent imitatrix of *Nature*, from whose principles and operations, we may collect, most probable causes for (almost) all effects, whether *natural* or *artificial*.

THE

THE
OYLY-WELL:
O R,

A Topographico Spagyricall
description of the *Oyly-Well*, at
St. Catharines-chappel, in the
Paroch of *Libberton*.

To this is subjoyned,

M O N S T R U M
CATHANESIENSE:

O R,
A description, &c.

B Y
MATTHEW MACKAILE,
Chyrurgo-Medicine.

Edinburgh, Printed for Robert Brown, and are to be
sold at his Shop, at the Sign of the Sun, on
the north-side of the Street, over against
the Cross, 1664.



THE
OXYLYWELL
OR

A Topographical & Historical
Description of the Oxy-Well, at
St. Catharine's-chapel, in the
Parish of All Saints,
London.

MONSIEUR
CATHARINE
OR
A Description of the

BY
MATTHEW WALKER
Chirurgeon-Medicin.

Printed by J. Smith, for Robert Kinney, and are to be
sold at his Shop, in the Strand, at
the Round-table, & the Green, near the
the Clock, 1682.



sed through the Refrigeratory of my vulgar Brain, and which I offer to be rectified through the Serpens of a wiser, that the World may be presented with a Destillatum, which may prove magis restaurativum of truth, than this will: For the world had never more need of such a medicine, than in this our age, which hath (too too well) nursed so many Charletans, as betake themselves to no other employment than cheating all men, with some one medicine or other (as Coffe, Chocolat, or Jacolata, &c.) to each of which they ascribe more virtues, than any ten can have, and give them to all such, as will be so foolish, as to hazard the disturbance of the aconomy of their bodies, in the hands of those, who are as ignorant of the nature of the instrument wherewith they do it, as are the vessels which contain them, and far more of the way of restoring the greatly disturbed body, to its pristine healthfull condition. Such Cheaters are those, who fill the publick places of every Town they come to with Programs for the end foresaid; or else arrogantly do assume to themselves the skill of curing, first, some particular diseases infallibly, and then all others curable by art, at

a cheaper rate, than any other; and to these they add many detracting expressions, which may prove derogatory to the reputations of the Physicians of the place, though never so learned; all which are the most infallible marks of a Cheater. Yea, their wandring all the world over, doth undenyably argue them to be such: for when people do perceive, that their medicine hath scarcely any one of those virtues which they ascribed unto it, and that their skill in curing is only palliative, they cease to employ them any more, and thereby they are constrained to begin, and to set up in another place, for getting of a new recruit of money, which they would have got to excess, in any one considerable Town or Country, if they or their medicine, could have cured the Gout, Chollick, Stone, &c. Such blades are pleased sometimes to erect Stage-playes in the Macrocosme, that by their skill in those, they may allicite men to permit them, to erect the like in their Microcosmes; which they often do, to the sad lamentation of some. I have let fly this Broad-side of exclamations at those of our age, who are most guilty of such actions; as also at such as have been so foolish as to believe, that every far fetcht fowl hath fair feathers;

H 2

feathers;

and so have been very ingrate to their Maker, who hath furnished their native Country with such an abundance of most able and skilfull Physicians, and remedies of all sorts (purgatives and spices only excepted) as might (with very little help from our neighbours) serve in the greatest necessities; as also to those well-deserving Country-men, who have spent the most and best of their time and means (and in travelling have ventured their lives) for the good of their Country. I hope the Echo of these exclamations will prove, in time coming, a warning-piece to all such as have been so wise to bear off, and not to go near such Pirates, who rob so many not only of their mony, but also of their healths; and that the most part of those children who have been burned by them, will (in time-coming) dread their fire. I shall only add an earnest desire, that you would accept this, and what followeth, with as charitable a mind to me, as mine is wel-wishing to you, and make such a good use of them as you may; in doing of which, you shall neither wrong your self, nor him, who is, and will still be

Yours, as he shall have reason,

M. M.

THE



THE OYLY-WELL:

O R,

A Topographico-Spagyrical description
of the *Oily-Well*, at *St. Catharines-*
chappel in the Paroch of *Libberton*.

IN the *Paroch* of *Libberton* (the
Church whereof lyeth two miles
south-ward from *Edinburgh*) there
is a *Well* at the Chappel of *St. Catha-*
rine, which is distant from the
Church, about a quarter of a mile, and is situat to-
ward the South-west) whose profundity equalleth
the length of a Pike, and is alwaies replet with wa-
ter; and at the bottom of it there remaineth a great
quantity of black *Oyl*, in some veins of the earth.

His Majesty King *James* the sixth, the first
Monarch of Great Britain, of blessed memory,
had such a great estimation of this rare *Well*, that
when he returned from *England*, to visit this
His ancient Kingdom of *Scotland*, in anno. 1617.
he went in person to see it, and ordered, that it
should be built with stones from the bottom to
the top, and that a door and a pair of stairs should

be made for it, that men might have the more easie access unto its bottom, for getting of the *Oyl*. This royal command being obeyed, the Well was adorned and preserved, untill the year, 1650, when that execrable *Regicide* and *Usurper*, *Oliver Cromwell*, with his rebellious and sacrilegious complices, did invade this *Kingdom*; and not only deface such rare and ancient monuments of *Natures* hand-work, but also the *Synagogues* of the God of *Nature*.

Before that we proceed any further, let us inquire from whence the water of all *Springs* (such especially as are most frequently deprehended upon, or near unto, the tops of high mountains) do proceed. The opinions of *Philosophers* concerning this affair, are these three, which are mentioned by *Frambesarius* in his *natural history*, and Dr. *Andrew Baccius de Thermis*, lib. 1. cap. 2. and by Dr. *John French*, in his *York-shire Span*, chap. 2.

The first is *Aristotles*, viz. That these waters are generat of vapors (which are contained in the caverns of the earth) and of air (insinuating it self into them, by the conduits it encountreth) which are condensed into water, by the frididity of the earth.

The second is, that these waters are only Rain-water, which having insinuat it self into the veins of the earth, maketh way for its own egress, by the most convenient passages.

The third is, *that these waters come from the Sea, through the veins of the earth; according to that saying of Solomons (Ecclesiastes, 1. 7. All rivers run into the Sea, yet the Sea is not full; unto the place from whence the rivers come, thither they return again)* who was the wisest of all meet men, who were before or should be after him, 1 Kings, 3. 12. and that not only in spirituals, but also in naturals: For the Scripture (1 Kings, 4. 33.) saith, *that he spoke (by which you may well understand writing also) of Animals and Vegetables.* He was also, no doubt, as skilfull in the art of *Navigation*, and knew well the natures of *Minerals*, seeing (1 Kings, 9. 26, 27, 28. and 10. 22.) *he made Navies of ships, which he sent with his servants, that had knowledge of the Sea, unto Ophir and Tarshish, from whence he brought gold and silver, in so great abundance, that in his dayes silver was nothing accounted of,* 1 Kings, 10. 21. He was also no less skilfull in *Agriculture*, as may appear from *Ecclesiastes, 2. 5.* And his making of *Pools of water (ver. 6.)* demonstrateth his dexterous skill, in finding out the subterranean passages of water.

As to the first of these opinions, we cannot embrace it, because of these reasons, 1. It is most improbable, that there are such large caverns in the earth, as will contain so great a quantity of vapors and air, as, being condensed, would afford so much water, as doth daily scaturiat in springs, which are upon high mountains: For ten Gallons

of air will scarcely afford one Gallon of water, as all will acknowledge. We will make use of this argument, not only in relation to such springs, as proceed from the tops of high mountains, but also in relation to some which are in lower places, and environed with mountains; one whereof we will instance, which perpetually, every moment yieldeth many Scots quarts of water; and it is that known Well in *Carrick*, at the *Wel-tries*, near to *Maybol*, unto which Well, no man (who knoweth the Country betwixt it and the Sea westwards) will deny its original to be from thence.

2. If the water, which doth scaturiat from, or near unto the top of an high mountain, doth proceed from vapors, which have been condensed in the caverns of the same mountains, these caverns being (of necessity) below the caverns from which the water issueth, it seemeth impossible, that the water can naturally ascend, from the lower unto the higher parts of these caverns, which are at the tops of the mountains; because *water doth naturally ascend no further, than it did descend*. We will notwithstanding acknowledge, 1. that there may be some springs upon, or near unto the tops of some mountains, which do not proceed from the *Sea* immediatly, but rather from some *Logh*, whose superface is more distant from the *Centre* of the earth, than the springs, and whose water cometh from the *Sea* immediatly, after that manner, of which you shall be informed afterwards. 2. When water issueth slowly from the lower part of

of a mountain (as from *St. Anthonies Well*, at *Arthurs seat*) it may proceed from vapors and air, which have been condensed in the caverns of that same mountain which are above the place out of which it issueth.

The second opinion is no less improbable; because it is incredible, that the *Rain-water*, which doth at sometimes only fall upon mountains and valleys, can be the only water, which doth perpetually scaturiat in all fountains; and that as abundantly from some, after a long summers drough, as after the greatest abundance of brumal showers.

We will here likewise admit, that there be many springs issuing from mountains, which are furnished with no other water, than the bottles of the clouds do afford unto some valleys, whose superficies are further from the centre of the earth, than the foresaid springs, whose waters are perpetually increased by *Rain*, and diminished (totally sometimes) by drought. But these are not the springs, concerning the original of whose waters we are inquiring; and therefore all arguments which are, or may be taken from them, can conclude nothing against *Solomon* his forementioned assertion.

The third opinion, which (as was said) is founded upon *Solomon* his assertion, is also dubitable; because it doth necessarily infer this improbable conclusion, *viz.* that the *superficie of the Sea*, is higher (that is, further distant from the centre of the earth) than the orifices of these subterranean veins, from which its water is alledged to issue forth

forth upon, or near unto the tops of mountains, though never so high; and that because of the fore-mentioned Axiom, viz. Water doth naturally ascend no further then it did descend; as is ordinarily demonstrat, by a stroup of white Iron, which is bowed at the middle.

The verity of the opinion, and validity of the consequence will evidently appear, by proving the conclusion to be a certain truth; for the doing of which, take these undeniable *Propositions*, from which we shall manifestly infer, that the waters of the most part of springs do come from the Sea, through the subterranean veins; because of the altitude of its superface, beyond that of the highest mountains from which water springeth.

Proposition 1. In the evening of the first day of the worlds creation, the four elements did surround one another, that is, the water did compleatly surround the earth (Psal. 104. 5, 6.) the air surrounded the water and the earth, and the element of fire (if there was or is such a thing) did contain within its concavity, all the three.

The truth of this is evident from, *Gen. 1. 1, 2.* For in the first verse it is expressly said, that *in the beginning* (that is, in the first day of the creation as ver. 5.) *God created the heaven and the earth;* and in the second verse, *the earth was without form and void;* that is, the form of the earth did not appear, because it was compleatly covered with the waters, which upon the third day of the creation, *God did gather unto one place, that the dry land might appear,* as ver. 9.

Pro

Proposition 2. Before the gathering of the waters unto one place, the *earth* and the *waters* did constitute one rotund *Globe*, and never since, but when God commanded them, for drowning of the world, to return unto that their first position or situation, wherein *their superface was fifteen cubits above the top of the highest mountain* (Genes. 7. 19. 20.) And that, 1. through the *fountains of the great deep* (Gen. 7. 11.) or *veins of the earth* (as Job, 38. 8.) the latter half of which verse, doth, without controverſie, relate to the *flood of Noah*. 2. Through the *bottles of the clouds* (unto which they had ascended into vapors, and) from which they did descend, for mauling of the hard *earth*, that the subterranean waters might the more easily conciliate a more facile egress unto themselves, by new passages, through the superſice of the same.

Proposition 3. From the third day of the worlds creation, untill the *flood of Noah*, and since that after the *flood*, the waters returned from off the *face of the earth* (Gen. 8. 3.) and the dry land appeared (ver. 5. 11, 12) the middle of the superſice of the *Ocean* (which we conceive most probably to be beneath the *Arctick* or *North-pole*) hath been, and is further distant from the centre of the *earth*, than the top of the highest mountain. This *Proposition* is undenyable: for, if when the waters surrounded the whole *earth*, their superſice was fifteen cubits higher than the top of the highest mountain, far more is it higher now, and hath

hath been ever since they returned from off the earth; and that (no doubt) unto one (yea their former) place, unto which they were at first gathered; Gen. 1. 9. Moreover, its truth is clearly evinced from Job. 38. 10. *I brake up for it my decreed place, and set bars and doors,* ver. 11. *And said, hitherto shalt thou come and no farther, and here shall thy proud waves be stayed.* For these verses, and the first words of ver. 8. of the same Chapter, and Job, 28. ver. 11. (*He bindeth the floods from overflowing, &c.*) do no doubt relate unto the third day of the creation, whereon God did gather the waters unto one place (Gen. 1. 9.) or unto the returning of the waters from off the earth (Gen. 8. 3.) or both, which is most probable.

This third Proposition is also proven, by Psalm 104. 5. *Who laid the foundations of the earth, that it should not be removed for ever,* ver. 6. *Thou covered'st it with the deep, as with a garment, the waters stood above the mountains,* ver. 7. *at thy rebuke they fled, at the voice of thy thunder they hasted away,* ver. 8. *they go up by the mountains, they go down by the valleys, unto the place which thou hast founded for them,* ver. 9. *Thou hast set a bound that they may not pass over, that they turn not again to cover the earth;* ver. 10. *he sendeth his springs (that is, permitteth the springs to pass) among the hills.* And, Prov. 8. 28. *When he strengthened the fountains of the deep,* ver. 29. *when he gave to the Sea his decree, that*

the waters should not pass his commandment. Seing it is most evident, from these places of Scripture (especially from *Psal.* 104. 9, 10. and *Job*, 28. 11. and 38. 8. 10, 11.) that the *Sea* hath a natural and perpetual inclination unto turning again to cover the *earth* (whereby all the parts of its superficies, may be equidistant from the centre of the *earth*) and that by the omnipotency only of God it is detained in that situation, wherein now it is, we do from them and the foresaid propositions conclude, that the waters of all springs (even such as do scaturiat upon the tops of the highest mountains) which run perpetually, do proceed from the *Sea*, through the subterranean veins.

For further probation of this opinion, consider, that if the superficies of the *Sea*, where any of its water doth enter into the veins of the *earth* by which it is conveyed to the tops of high mountains, were not further distant from the centre of the *earth* than the tops of those mountains, it could never ascend unto them, no more than the water which issued from the top of an high mountain, could move in a natural maner (as it doth) toward the *Sea-shore*, if the place from whence it proceedeth, were not further distant from the centre of the *earth* than the shore.

Here we cannot but take notice, how *Dr. John French*, in his *York-shire Span*, chap. 2. pag. 10, 11, 12. denieth, that the middle superficies of the *Ocean* is higher than the shore, and that there are such veins in the *earth*, as the water would pass through

through, unto the tops of mountains where springs are; because the veins in the bowels of the earth, are not wholly and throughout full, as of necessity they must be, before water will ascend through them, for preservation of its continuisty, and the avoiding of a vacuum, as those crooked pipes are, by which Wine-coopers use to draw Wine out of one vessel into another. For answer, in consideration of our former reasons, we will as confidently affirm, as he doth deny, that the middle surface of the Ocean is not only higher than the shores, but also higher than the highest mountain; and that these veins of the earth, are wholly, and throughout, full of water; because if they were not so, the Sea-water could never scaturist from the tops of high mountains.

The foresaid Author having (as he thinketh) sufficiently refuted that opinion, which asserteth the ascent of the waters by the subterranean veins, which are in the mountains (though it be according to the expresse Word of God, *Psal.* 140. 8.) *They go up by the mountains, they go down by the valleys, unto the place which thou hast founded for them*) setteth down his own (pag. 15. 16.) which is this, the water which proceedeth from the tops of mountains, is only the vapors of the waters contained in the caverns of the earth, which the subterranean heat (of the burning Brim-men, as pag. 22.) did eleuat unto the heads of the springs, where they are condensed into water, and water is eleuated from the Sea unto the middle
region

region of the air, where it is condensed into water. Having into our Appendix unto *Moffet-Well*, shewed the improbability (if not the impossibility) of that his *subterranean fire*; for refutation of this opinion, I shall only make use of the words of his own 2. *Arg.* (pag. 2.) whereby he refuteth the opinion of Seneca, (viz. That springs are generated chiefly of earth, changed into water) changing only the words air and corrupted, and putting vapor and converted for them, thus, It is to be wondered at, that seeing ten parts of vapor, if not more, serve for the making of one part of water, containable in the same space, there should be so much space in the earth for containing so much vapor, as serveth the making of such a quantity of water, as springs daily out of the earth, how is it possible that so much vapor can be converted in such a moment? Moreover, as it is most probable (as he there writeth) that the whole elementary air, being of its own nature most subtil, and not being sufficient to make such abundance of water, as all the springs of the earth will amount to; so it is most like, that though there were such a *subterranean fire*, occasioning the elevation of such vapors, yet all these would not be sufficient, to yield so much water, as doth daily proceed from all the springs that are upon the earth.

Let us here applaud the most ingenious opinion of the most famous Philosopher *Renatus Des Cartes*, princip. Philosoph. parte 4. Parag. 65. *Us animalium sanguis in serum venis & arteriis, sic aqua*

aqua in terra venis circulariter fluit. Because thereby appeareth one great resemblance, which is betwixt the *Macrocosme*, and the choicest of *Animals*, *Man*, called the *Microcosme*: Not that we think, that the similitude holdeth in all things, but that because of its reality, the foresaid *Author*, is much to be admired and respected for his ingenious observation.

In the next place, we shall first give you that description of the *Well*, which we find in *J. Monipeny* his *Memorial of the rare and wonderfull things of Scotland*, at the end of his *Abridgement of the Scottish Chronicles*. 2. We shall shew, in what things this description is faulty. 3. Describe the manner of collecting this *Oyl*, and add such things as we have observed in the *Well*. 4. Prove, that the forecited *Author* his opinion, concerning the *Oyl*, is most probable. 5. Set down the manner of its separation from the *Coals*. 6. Describe the *Virtues*, which undoubtedly it hath, or in probability may be ascribed to it. 7. Propose and answer three *questions*.

As to to the first, viz. *I. M.* his description of the *Well*, these are his words. In *Louthian*, two miles from *Edinburgh*, is a *Well-spring*, called *St. Catharines Well*, flowing perpetually with a kind of black fatness or *Oyl* above the water, proceeding (as is thought) of the *Parret coal*, being frequent in these parts. This fatness is of a marvellous nature; for as the coal whereof it proceeds, is judain to conceive fire or flame, So is this

Oyl

Oyl of a sudain operation, to heal all salt-scabs and humors, that trouble the outward skin of man; commonly the head and hands are quickly healed by the virtue of this Oyl. It renders a marvellous sweet smell. Dr. J. A. Hart also maketh mention of it, to the same purpose, in his Dyet of the diseased, Book 3. chap. 19. at the end.

The Author of the forementioned description is mistaken; 1. In saying, that the *Oyl* floweth perpetually above the water; 2. In asserting, that it hath a marvellous sweet smell.

As to the latter assertion, it savoureth of misinformation, because the smell of the *Oyl* is most like unto the smell of the smoke of Coals, and their *Oyl*, which are no wayes gratefull or sweet; and the first assertion is also of the same nature: For the *Oyl* remaineth in the veins of the earth, which are near unto the bottom of the Well, and doth never ascend unto the superfiſe of the water, but by drops only, and that when the water is commoved; because some drops of the *Oyl*, are then separated from the rest, which are detained in the veins of the earth, through their viscosity, by which they are attached unto the earth.

3. The manner of collecting the *Oyl* is this, the water of the *Well* being exhausted by buckets, untill the superfiſe of that which remaineth, be as low as the orifices of those veins, in which the *Oyl* is absconded, when the superfiſe of the water is often moved by a convenient vessel, from the side of the *Well*, where these orifices are, unto the middle,

middle, the *Oyl* cometh forth of the veins, and floateth upon the water, from which it is separated, as *Cream* from *Milk*.

Here you would take notice; 1. that when the *Well* is full of water, there appeareth sometimes a *scum* upon it, which is most delicatly variegat with these colours, *blue, red, green, purple, &c.* (and *Chamelion*-like) changeth all these colours, according to the variation of its position unto your eyes, either by your moving, from one place unto another, round about the *Well*, or by its moving its place upon the water, by motion. The reason of this variation of colours, we conceive to be the different wayes of reflecting the rayes of light, by by the foresaid *scum*, seing it is not altered by any other physical agent. 2. The water of the *Well* is scarcely affected with the taste of the *Oyl*, so that it may be justly esteemed as destitute of its other virtues. The reason of this is, because its taste (and consequently its parts, wherein its virtues do consist) cannot be communicated unto the water, without the mediation of its *salt*, either *fixed* or *volatile*: But so it is, that the *fixed-salt* of the *Coals*, remaineth inseparable from them, before they be calcined; and the *volatile*, being *nitrous*, is drawn along with the *resinous oil*, whereby its solution in the water is prohibited.

If it shall be demanded, what this *Scum* is? We answer, that it is nothing else, but one or more drops of the fore-mentioned *oil*, which have been by agitation of the water, first separated from the rest,

rest, which lurketh in the subterranean veins at the bottom of the Well, and then by a further commotion, extended over as much of the waters surface, as it could cover, when converted into a thin pellicule or *scum*. The truth of this is easily demonstrat by this experiment; take one drop of the fore-mentioned *oyl*, and instill it into a large vessel full of water, and then agitat the water with a stick, and you shall presently perceive the like *scum*, which will vary its colours, as was said. The *Chymical Oyl of Worm-wood* will do so also.

4. It is most probable, that the foresaid *oyl*, is the *oyl of Coals*: for proving of which, consider, 1. that this *oyl* is most like, in colour, smell and taste, unto the *oyl*, which is by the *Spagyricall Art* extracted out of *Coals*, save only in that it is not so strong; because it was not extracted by the violence of fire, as this, whose strength existeth in its most active spirits, which the fire hath separated from the *Coals*. 2. The artificial *oyl of Coals*, is impregnate with the same virtue (but in a more eminent degree) which the *Author* ascribeth unto the *oyl* of the *Well*, as experience hath often testified unto me. 3. A drop of the artificial *oyl of Coals*, being instilled into a large vessel full of water, by agitation it will be converted into a *scum*, which will vary its colours, after the same manner that the *scum* of the *Well* doth. 4. The adjacent ground, south-wards, is full of *Coal-pits* and *Lime-stones*, which we conceive do tend unto the

nature of *Coals*, and do differ only from them, as *Silver* differeth from *Gold*; and this difference is easily collected from that *Axiom*, *Metallizationis finis est aurificatio*. Moreover, *Lime-stones* are alwaies found near to *Coals*, as we are credibly informed,

Having already asserted, that this *oyl* is the *oyl* of *Coals*, we cannot but also confess, that we are of opinion, that it is the very *oyl* of the *Parret-coal*; because this is the most sulphureous *Coal*, whose copious *Sulphur*, is of a most facile separation, by the abluent water, as it passeth through the veins of the *earth*, in which this sort of *Coal* is contained.

5. Whilst the *Water* of the *Well* passeth through the veins of the *Earth*, where the *Coals* are, it carrieth along with it, as much of the *oyl*, as serveth to make an unctuous *scum* upon its superfiice; and when it passeth through other veins of the *earth* into the *Well*, it eneountereth some dryer parts, to which it attacheth it self, untill it is converted into an *oyl*, by the contraction of its parts, and continual accession of more pellicules. This is sufficiently proven by the forementioned experiment: For if one drop of the *oyl* be convertible into an unctuous *scum* (as was proven) why should any doubt, that the unctuous *scum* may be again converted into *oyl*, by having its parts more strictly united?

We hope that none will question the separation of this *oyl* from *Coals*, which are a most sulphureous

reous mineral, seing many *vegetables* (less or no more sulphureous) do daily lacrimat sulphureous *Gums*, as *Turpentine*, *Mastick*, &c.

The virtues of the oyl.

6. **T**He only virtues which, as yet, are ascribed unto this *oyl*, are, 1. Its singular curing of the *Scab*, by the forementioned *Author*. 2. A power of healing all *aching* of the *Bones*; by our learned Country-man *Dr. Anderson*, in his *Cold-spring of Kinghorn*.

But we conceive, that these following *virtues* may, upon a most rational account, be attributed unto it, and to the artificial *oyl* of *Coals*.

1. It is very probable, that these are excellent *Anti-podagrisk* and *Anti-paralytick* *oyls*; because of the intense calidity wherewith they are endued.

2. They are good *Anti-hysterick* *oyls*, for internal, as well as external use; because of the fetide smell, wherewith they are impregnat.

3. They will prove good *Ant-asthmatick* *oyls*; because of the aperitive quality, wherewith they seem to be enriched, by reason of the acrimony of their taste, resembling that of the *Balsam of Brimstone*, which is esteemed one of the best *Ant-asthmatick* medicines which we have; and is best known unto our *Æsculapian* sons and servants, by the name of *Dr. Macullochs Balsam*; because that learned and expert *Physician* (to his *Majesty*

King James the sixth, of glorious memory) was the inventor of its more terse preparation (whereof the antients were ignorant, and) which he left behind him, unto us his Country-men.

7. We shall propose and answer three questions, one whereof is concerning *Coals*, and the rest are concerning *Oyls*.

Quest. 1. Why do not *Coals* yield a *fixed-salt*, when exposed to *spagyric* resolution? seeing they are one of the kinds of *minerals*, which do most abound in *salt*. It is answered, 1. that because they do not render this kind of *salt*, it is not to be supposed, that therefore they contain none of it; for the whiteness of their ashes, and their intense corrosive quality, when converted into *Lime*, by calcination, with stones of their own nature (as was said) do sufficiently demonstrat the contrary. 2. They do not yield any *fixed-salt*; because, when they are calcined, their *fixed-salt* doth so corrode the metallick *earth*, which they contain, that it converteth the same, with its self, into a *magisterial powder*; from which (as from the *magisterial powders* of *Pearls*, *Corall*, *Lead*, &c.) experience teacheth the impossibility of separating the corrosive *salt*. 3. They afford no *fixed-salt*; because they are of the nature of *Lime-stones*, from which (when converted into the most corrosive *Lime*) it is impossible to extract any *fixed-salt*. *Teste* Zuelfero, *Chymico expertissimo*, in *Anima-adversionibus suis*, in *Appendice in Antidotorum Classen*, de *salibus Theriacalibus*, *Pharmacopoeia Augustana*.

Augustana, ab ipsa ingeniosissime reformata, pag. 276. colum. 2.

Quest. 2. Why do some *oyls* perpetually descend unto the bottom of the water, as some *oyls* which are distilled by *descension*? *Ans.* These *oyls* being more crass than others, are also more ponderous, and therefore cannot be supported by water, which is endued with more tenuity of parts; but when these *oyls* are (by reiterated distillations) rectified, and so deprived of these crasser parts, the water will support them.

Quest. 3. Why do the most part of (if not all) *oyls* descend unto the lowest parts of sulphureous *spirits* (as of *Wine, Barley, &c.*) of an aqueous consistence. *Ans.* The tenuity of the *spirit* is the undeniable cause, why it cannot support the more crass *oyl* (unless it be in a most exile quantity) which is most participant of its nature and properties: For, if you will mix some crass water with such a *spirit*, it will then support the *oyl*, to which it formerly denied that service.

Seeing the curious *Former of all things*, hath much embellished the superface of our *Scottish* ground, with so many *mineral springs* of different natures, and richly enambled its bowels with such a variety of *metallick markasites* (as is well known) it is much to be regrated, that so few have attempted the discovering of their natures, or (having made some progress in that) adventured to expose their conceptions, concerning either of them, unto *Fames* fingering. I know not if any

of our Country-men have published any thing concerning our *Mettals*; and it is to be feared, that there will be little, or nothing done to this purpose in haste, seeing it hath pleased the *Almighty*, to put an end unto the dayes of that most learned and ingenious *Mineralogist*, the Lord *Hopton*, who died *Dec.* 1662. And (according to my best knowledge) there are only three, who have written concerning our *mineral Springs*.

The first is Dr. *Moor*, present *Professor of Medicine*, in the *University of Aberdeen*; who published a little book, concerning the Well of *Peterhead*, in the year, 1636. from which it is manifest, that then (though a student only of *Medicine*) he was privy to many of the most excellent actions of *Art and Nature*.

The second is Dr. *Anderson*, who wrote most learnedly upon the *Cold-spring of King-born*, in *anno.* 1618. and in that his book, mentioneth many rare springs (wherewith *Scotland* is replenished, and) which we will here insert, because that book is rare to be found. The first is the *spring* which issueth from the top of *Rattray-cave*, in the *Barony of Slains*, whose water doth, in a short time, congele into a hard stone, as saith our forecited *Author* also, in his *memorial of the most rare and Wonderful things of Scotland*. Our learned and ingenious Country-man, Dr. *Sylvester Rattray*, doth also make mention of this water in his book, entituled, *Aditus novus, ad occultas sympathie, & Antipathie causas inveniendas*. Here you would take notice

notice of a story, which will convince you of the possibility of this. A Scottish Gentleman, having been in *France*, and there acquainted with another of that Country, who (it seemeth) was curious to know the various and (almost) miraculous operations of *Nature*, did inform him, by writing, concerning this Well, and its water. The French man returned him this answer, *I am sorry, that you should think me such a fool, as to believe such a Paradox as this is, that water should, in a short time, be converted into a stone.* Whereupon our Country-man fearing least the other should think this a meer fiction, he took the pains, to set a glass under the dropping water, untill it became full, and then he sent the glass unto him, the water therein contained, being converted into a stone. A very ingenious argument, for convincing so confident a *Gain-sayer*. Secondly, a *spring* of the same nature, which himself did see, in one of the vaults (which were most curiously hewed out of a solid rock) of *Roslain-castle*. Thirdly, two wells in the Castle of *Dumbarton*, distant two or three fouts, the one from the other; the uppermost whereof, springing from *north* to *south*, yieldeth a very salt water; the other running from *south* to *north*, exhibiteth fresh water. Fourthly, the *Mud-carst* wells of *Menteith*. Fifthly, the *Lady-well* of *Strathearn*. Sixthly, the *Lady-well* of *Ruthven*. Seventhly, this *Oily-Well* at *St. Catharines Chappel*.

The third is Mr. *William Barclay*, whom Dr. *Anderson* stileth, his very learned friend, and old *Parisien* acquaintance, and of whom he writeth, that he would have all the effects of the Cold-spring of King-horn to proceed from Tinn, &c. So it is very probable, that that Gentleman, hath written something concerning that, or some other spring.

And seing there are very many rare and admirable springs, in several places of this Kingdom, far distant from one another, concerning which none hath, as yet, put pen to paper, such as live near to any one of them, would do well to attempt the discovering of their *natures* and *virtues*, and then publish them for the good of others; by the doing of which, they would purchase unto themselves further access into *natures Cabin*, where they would find greater discoveries of her manifold and great mysteries, with the knowledge of which, *Providence* hath decreed to enrich none, but the diligent searchers after them.

Monstrum

MONSTRUM
CATHANESIENSE:

O R,

A drscription of a monstrous Child, born
and living in *Caithness*.

IN the Sherifsdome of *Caithness*, at the Church of *Lathron*, there is a child (named *Donald Sutherland*) who upon the seventh day of *May*, 1663. was eighteen months and fourteen dayes old; yet as tall as any ordinary child of three years old; in describing of whom, we shall inform you of these following particulars.

1. He is so big, that a string of three quarters in length (wanting one inch) will only surround him at the middle, when all his cloaths are off.

2. His *Head*, *Arms* and *Legs*, are so sutable to his body, that he may be called the true pourtraicture of *Bacchus*; because most like unto him, as he is ordinarily pourtrayed,

3. He is of a most fair and ruddy complexion, having a comely countenance and pleasant skin.

4. Yet it is to be feared, that he shall never be instrumental, in producing another like to himself; nature having decreed him an *Ennuch* from the womb: For his *Scrotum* is empty, and unfashioned, that to the touch (without accurate inspection) it would argue him to be an *Hermaphrodite*. Moreover, his *Tard* is destitute of *Glans*; and the *Preputium* is attached to the extremity, or entry to the *Urachus*, on all sides.

5. He hath sixteen *Teeth* (eight above and eight below) most orderly and decently set; yet he is most unwilling to eat any bread, but loveth only soft meats.

6. His appetite to meat is so admirable, that upon the forementioned day, when he had eaten to the admiration of all who were by him, ere half an hour was expired, and dinner being prepared for us who were newly lighted from off our Horses, he did eat three hard-boyled *Eggs*, and six or seven ounces of new *Cheese*, and then would have eaten some boyled *Fishes*, if we had not restrained him.

7. There is upon him such a burden of *Beef*, that, standing, he resembleth a drunken man, whose head is giddy: so that he can hardly walk, unless he be led by the hand: But he will go very fast upon his hands and feet together. Moreover, when he essayeth to rise from off the ground, he bloweth,

bloweth, and maketh a noise, as one having a burden upon him.

8. His body is adorned (or rather deformed) with many *lirks*, by reason of the great quantity of flesh. He hath two *lirks* in his *Neck*, three upon every side, four upon every *Arm*, betwixt the *Arm-pits* and *Thumbs*; two upon each *Thigh*, betwixt the *lirk* of the *Lirk* and the *Knee*; and those were so deep, that a sixpence being put into the uppermost, it did abscond or cover the half of it. He hath also a *lirk* beneath every *Knee*, and a little above his *Ancles*.

9. His *wrests* (immediatly above the *lirks*) are more than seven inches in compass; and the *brans* of his *Legs* are three inches bigger.

10. His *excrements* are sutable to his age, but not to his eating: so excellent is the digestive faculty of his *stomach*, and the attractive of his *lacteous vessels*, that they permit nothing to be eliminat by the expultrix faculty, which can cede into aliment. The reason of this may, probably, be the superlative vigor of the *ferment* of the *stomach* (the great instrument in chylication) which is occasioned by the deficiency of that *ferment*, which is the great *spermato-poetick* agent: For the *Former* of all things useth mercifully to repair the natural defects of some members, by enabling others to exerce their natural offices, more extraordinarily, than naturally they use to do. As when one born blind, hath a most exquisite sense of *hearing*, *feeling*, or a good *memory*.

wory, &c. As was manifest in the person of *Alexander Cusby*, who lived near to the house of *Drum*, at the water of *Dee*, and being altogether blind, did (as I was informed by an Eye-witness) take asunder a house *Clock* of the ordinary size, belonging to the *Earl Marshal* of *Scotland*, and having mundified all the wheels thereof, did set them together again in their due order. The goodness of his digestion is, doubtless, the cause of his excessive growing.

11. The persons who keep him did inform, that he was born of no bigger stature, than any other child useth to be; and that he began not to grow to that monstrous bigness, untill he was six months old; and that he had lost much of his flesh since he was weaned, which had been done only fourteen dayes before.

12. His strength is such, that being displeased, he will easily break spoons made of *Horn*.

13. He is only learning to speak the *Highb-land language*; but understandeth much of it.

14. The weight of his body (which could not be measured, because of the want of *weights*) is so great, that he is thereby rendered so lazie, that a *Girl* of twelve or thirteen years old must carry him from place to place, his arms being about her neck; and when she ariseth with him from the ground, she must be assisted.

15. He is of so hot a complexion, that a shirt sufficeth him for cloathing.

16. His *Parents* are poor people, of the middle stature, and somewhat inclining to the lesser sort.

17. To conclude, he is such a person as might be a *Present* for a *Prince*, who would be careful of dyeting him aright; which if it shall be neglected, will either occasion a short life, or make him a *Buffis-head*, destitute of understanding; or else occasion his not continuing to accress unto a preter-natural bigness, as he encreaseth in years.

Culpepers

18. This is a very important point, and one which is often overlooked. It is the only one which is not mentioned in the Bible.

19. To answer this question, it is necessary to consider the nature of the evidence. The evidence is of two kinds: (1) the evidence of the Bible, and (2) the evidence of the world. The evidence of the Bible is of two kinds: (1) the evidence of the Old Testament, and (2) the evidence of the New Testament. The evidence of the world is of two kinds: (1) the evidence of the natural world, and (2) the evidence of the human world. The evidence of the Bible is of two kinds: (1) the evidence of the Old Testament, and (2) the evidence of the New Testament. The evidence of the world is of two kinds: (1) the evidence of the natural world, and (2) the evidence of the human world.

20. This is a very important point, and one which is often overlooked. It is the only one which is not mentioned in the Bible.

CULPEPER'S CHARACTER:

O R,

A CHARACTER of Mr. *Culpeper*
and his Writings.

B Y

MATTHEW MACKAILE,
Chyrurgo-Medicine.

Prov. 26. 5.

*Answer a fool according to his folly, lest
he be wise in his own conceit.*



Edinburgh, Printed for Robert Brown, and are to be
sold at his Shop, at the Sign of the Sun, on
the north-side of the Street, over against
the Cross, 1664.

COLLEGE CHARACTER

O. R.

A CHARACTER OF Mr. Gifford
and his Writings.

BY

MATTHEW MACKENZIE,
Chyrurgico-Medicus.



Edinburgh, Printed for Robert Brown, and are to be
sold at his Shop, at the sign of the Sun, on
the north-side of the Street, over against
the Cross, 1764.

others, will be taught to make their address unto those who are the licenced and qualified professors of the Art. 2. They will, no doubt, much resent my writing against a dead Man, who is unable to answer for himself, and so challenge me of baseness. To this I answer, that it appeareth, Mr. Culpeper, having astrologically foreseen, that some would write against him after his death, did pen that Pamphlet, entituled Culpepers Ghost, generously to excuse any that intended to do it, and to excite others who inclined not to it; and that he might not come short of them in the like work: For it is impossible to exult so much over him, after his death as he doth in that Pamphlet, and others of his writings, over others, who were gone hence before his own birth. Others will possibly condemn my noticeing and answering such scurrilous, profane and unchristian expressions, as are found in his writings, and which no sober or wise man will care-for. To these I answer, that though it be impossible, that he, by being answered according to his folly, can be rendered capable of being impeded from becoming wise in his own conceit, yet such as survive him, and are daily, in his
name,

name, printing books, stuffed with such expressions, as were familiar unto him, may be taught this lesson.

It ought to be the lamentation of all, who have any knowledge of the mysterious operations of sagacious Nature, that there are so few who make it their study, to discover more of her mysteries; and that such as have made some progress in this work, are so sparing in communicating their knowledge unto others, especially in this age, wherein there are so many, who (as Mr. Culpeper ever did) offer nothing to the most delicat pallats, but crumbe recocta, that is ov'r-nights Keal. It is most probable, that if Mr. Culpeper had been so far favoured by the heavenly powers, as to have been made the first discoverer of the circulation of the blood (as was the most learned and famous Dr. Harvey) he would have made Aurum Potabile of it, that is, written of it to no purpose. I am confident, that the learned Dr. Thomas Willis, considering the most laudable practices of Dr. Harvey, in writing de Generatione Animalium, & Circulatione sanguinis; and of Dr. Glisson in writing de Rachitide; and that there are too many books already in the world,

inqqla K 3 written

writen concerning all subjects, as they are already known, did defer to employ the Press, untill he had prepared something, which would (as all intelligent persons will acknowledge) merit no small acceptation (viz. his *Diatribæ duæ Medico-Philosophicæ*, de fermentatione & febribus, and his dissertation epistolica de urinis, which do demonstrate, that he is one, who maketh it his great study ingeniously to discover, and candidely to communicate the knowledge of the mysteries of Art and Nature) because, à vulgari sententiâ, tanquam via maximè trita paulisper recedens, & minus calcato insistens tramiti, as he writeth in his Preface, to his *Diatriba de febribus*. But lest this Epistle should become disproportionat to that, to which it is prefixed, I will sum up all that I have to say, in this request, that you would put a favourable construction upon this attempt, in doing of which, you shall oblige,

Your cordial Well-wisher,

M. M.

Culpepers



CULPEPER'S
CHARACTER:
O R,

A CHARACTER of Mr. Culpeper and
his Writings.

IT was by some reported of *Cato*, that
he never spake a word of which he had
cause to repent; and there are (no
doubt) not a few, who will say little
less concerning what Mr. *Culpeper*
hath wrote. But such as believe what *Solomon*
said (*Prov. 10. 19. In the multitude of words
there wanteth not sin*) will easily be convinced,
that he who made so many motions, in so many
volumes which he wrote, could not but make some
trippings. If *Bishop Latimer* was more cautious
of what he said, before his examiners, when he
heard the pen of another writing behind the hang-
ings (because *littera scripta manet, and nescis vox
missa reverti*) how much more cautious should
Mr. *Culpeper* have been, in writing with his own
hand, and thereafter publishing in print, such
things as were most reprehensible, by any sober

man, as you will anon be convinced. I will first mention such of his expressions as are most derogatory to the glory of God, and prejudicial to his servants.

In the *Epistle to the Reader*, prefixed to his book, entitled, *A directory for Maid-wives*, he writeth thus, *In this world the devil hath his agents, and their actions are to keep you in darkness. Who are our jaylors? I say Scholars; and thus I begin to prove it; in divinity they have given us a translation of the Bible (such a one as it is) all the proper names in Scripture they have given you in pure Hebrew names, in an English character. Pray do so much as read the four or five first Chapters of the first book of Chronicles, and see what instruction you can find there. And a little after he writeth of the Scripture thus, When you want knowledge, you know whether to go for it; not to an idle Priest, but to one that will not upbraid you for your labour. Besides all this, whole sentences in Scripture, are so translated, that 'twould make a man sick to see them. Had not the Priests formerly absconded the mysteries of the truth from us, Sermons would have been cryed about the streets for three halfpence a dozen.*

By

By these expressions you may know, how the pulse of his soul did beat at the writing of them: For *Solomon* hath said *Prov. 21. 23. Who so keepeth his tongue, keepeth his soul.* Surely then, when the tongue raileth against God himself and his servants, it argueth the soul (at that time) to be in a lamentable estate, by reason of most depraved principles. Without transgressing against the rules of charity, Mr. *Culpeper* (no doubt) may be called the most audacious *Momus* of this our age, wherein he lived, in daring to vilifie that most exact translation of the holy Scriptures in such a parenthized expression; and also to speak the worst of evils concerning *Dignities*, as you shall hear hereafter. I am confident, that if he had been more diligent in searching the Scriptures (like the *Bereans*, *Act. 17. 11.*) for edification, he would have found more instruction from these Chapters in the first book of *Chronicles*; for by comparing them and the like places, with *Matth. 1.* and *Luke, 3.* he might (according to the judgment of all *Divines*) have understood, that they were penned by the *Holy Ghost*, chiefly for this end, that it might appear to the *Church* in after-ages, that *Jesus Christ* our Saviour was lineally descended of *Abraham* and *David*; and not only that we might be instructed by the etymological interpretations of the names; else the Spirit of God would have set down the interpretations of them all in the Text, as He did (for reasons known to Himself) of many in several

several places, some whereof we will here insert.

Abraham, Gen. 17. 5. *A father of a great multitude, or many nations.*

Asker, Gen. 30. 13. *Blessedness.*

Babell, Gen. 19. 9. *Confusion.*

Ben-oni, Gen. 35. 18. *Son of sorrow.*

Beaula, Isaiah, 62. 4. *Married.*

Cephas, John, 1. 42. *A stone.*

Dan, Gen. 30. 6. *A judgment.*

El-beth-el, Gen. 35. 7.

Elymas, Acts 13. 8. *A Sorcerer.*

Ephraim, , Gen. 48. 52. *Fruitfull.*

Gad, Gen. 30. 11. *A troop, or band.*

Hephzibah, Isaiah, 62. 4. *My delight in her.*

Ichabod, 1 Sam. 4. 21. *Where is the glory?*

Jedidiah, 2 Sam. 12. 24, 25. *Beloved of the Lord.*

Jerubbaal, Judg. 6. 32. *Let Baal avenge.*

Joseph, Gen. 30. 24. *Increasing.*

Issachar, Gen. 30. 18. *An hire.*

Ishmael, Gen. 16. 11. *God hath heard.*

Israel, Gen. 32. 28. *A prevailing with God.*

Levi, Gen. 29. 36. *Joyned.*

Loammi, Hos. 1. 9. *Not my people.*

Lornhamah, Hos. 1. 6. *Not having obtained mercy.*

Melchizedeck, Gen. 14. 18. and Heb. 7. 2. *King of righteousness and peace.*

Moses, Exod. 2. 10. *Drawn out.*

Naphtali, Gen. 30. 8. *Wrestling.*

Setb,

Seth, Gen. 24. 25.

Simoon, Gen. 29. 33. *Hearing*.

Zebulun, Gen. 30. 20. *Dwelling*.

Moreover, the pious and learned *Interpreters*, being most zealous to advance the knowledge of God and of the Scriptures, did, upon the margents of many *Bibles*, set down the interpretations of the most part of the proper names.

I shall only add, that Mr. *Culpeper*, his censure of those Chapters in the *Chronicles*, savour-eth of no less presumptuous impiety, than, first, the taxing of Almighty God, His Wisdom and Will, in not authorizing the holy Pen-men of the Scriptures to explicat all the proper names, as they did the most considerable. Secondly, that he would have had the *Interpreters* to have added unto the Scriptures, the explications of those proper names, which are not explicat in the original text; by doing of which, they should have made themselves the object of that dreadful threatening, *Revel. 22. 18*.

As for that expression of his, *Whole sentences in Scripture are so translated, that it would make a man sick to see them*, I shall only say this of it, that no ingenuous and rational man, would have so impudently asserted so great a paradox and untruth, without instancing some particular sentence for proving of his assertion. It is one of Mr. *Culpeper*, his own physical sentences, that *physick without a reason, is like a pudding without fat*; the like whereof may very well be said of this his extravagant

extravagant assertion, destitute of probation.

It is admirable, that Mr. Culpeper, who (in his *Epistle* prefixed to his *Translation of the London Dispensatory*) assumeth unto himself, fellowship with Christ and his Apostles, and likenseth to God, did not take the pains to translate, or correct some of those Scriptures which he reprehended. But his surviving wife (in her *Epistle* prefixed to his *Treatise of Aurum potabile*) seemeth to give a sufficient reason for this omission, in these words, *My husband left seventy nine books, of his own making or translating, in my hands----- Also my Husband left seventeen books, compleatly perfected, in the hands of Mr. Cole, for which he payed my Husband in his life-time.* Let the sober and judicious Reader judge of the probability of this, considering that he had not above nine years for this work and his *astrological* studies also (for he began not to write till the year, 1648. or 1649. and he died, 1654. or 1655.) and whether or not many books have been printed in his name, since his death, which were not written some years after the same; particularly that book, entituled, *Arts Master-piece; or the beautifying part of physick; whereby all defects of nature in both sexes are amended, age renewed, youth continued, and all imperfections fairly remedied-----* Never before extant, though long since promised by Mr. Nic. Culpeper, but now published by B. T. Doctor in physick. London, printed, 1660. Concerning this book I have these six things to acquaint you with.

1. That

1. That it is most probable Mr. *Culpeper* never wrote it, else his *Relist* had published it, as she hath done other books, since his death.

2. The publisher of it in the *Title-page*, putteth *B.T.* for his name, but at the end of his *Epistle to all truly virginous Ladies*, he setteth *L.D.* which discrepancy, reflecteth not a little upon the Publisher, as well as upon the Printer.

3. In the *Title-page* he affirmeth *these Experiments to be so far discovered, that every man may be his own Apothecary*: but it is most probable, that the Penner of them, was as ignorant of the knowledge of that ingenious art, as a *Mole* is destitute of the visible faculty: for, pag. 71. he ordereth the making of an *Oyntment*, without *Oyl*, or any *unctuous liquid body*.

4. Many (if not the most part) of the prescriptions contain, 1. either such things as are most costly, as that *Oyntment* (pag. 70. *to cause a beard*) for the making of which he prescribeth *three ounces of Musk*. 2. Or such things as cannot easily be gotten, as, pag. 71. *the blood of a Batt*, for making of an *Oyntment*, for *hindering the growth of hair*. And, pag. 73. *the turd of a Mole*, for making of another *Oyntment*, to the same purpose. And, pag. 77. *the blood of a Tortoise*, for making an *Oyntment to take away the hair*. 3. Or else such things as are ridiculous; because not seconded with reason. As, pag. 79. *the Gall of a white Ox*, for making of a *liniment to whiten the hair*; as if the Gall of a red or black Ox,

Ox, would not serve as well. And, pag. 100 *Grass-plantane, the rine taken off, and washt nine dayes in spring water*, for making an ointment, for leprous faces. Those nine dayes of purification, might be sufficient for bleetching both the herb and the face into other colours.

5. *Frustra fit per plura, quod fieri potest per pauciora*: That is, there might be, from amongst the *Tautological farrago* of those prescriptions, some few composed of the choicest simples, for every several distemper there mentioned, which would prove more usefull, than any of these which are so confusedly set down.

6. The book is no wayes answerable to its promising Title-page; which may give just ground to suspect, that the effects of those remedies will be as disproportionable to the expence that men must be at in trying of the experiments.

It is a most infallible token of ignorance, cheating and foolish ostentation, for a man to prefix a most flourishing Title-page to his book which doth scarcely deserve any at all; such as is that book, entituled: *A discovery of subterranean treasure, viz. of all manner of Mines and Minerals, from the Gold to the Coal; With plain directions and rules for the finding of them, in all Kingdoms and Countries. And also the art of melting, refining and assaying of them is plainly declared, so that every man that is indifferently capacious, may with small charge, presently try the value of such ores, as shall be found, either by rule or by accident.*

accident. *Also a way to try what colour any berry, leaf, flower, stalk, root, fruit, seed, bark, or wood will give; with a perfect way to make colours that they shall not stain, nor fade like ordinary colours.* London, Printed, 1653. and are to be sold by Humphrey Mosley at the Princes Armes in St. Pauls Church-yard.

This book consisteth of nine sheets only, and is so miserably defective in performing any thing promised in the Title-page, that the world can hardly produce another like it; so that the old saying, *Parturiunt montes* (which contain those Mines and Minerals) may be the motto of its *Frontispiece*, and *Nascitur ridiculus mus*, its *Post-script*.

Before I pass from this purpose, I will give you a taste of Mr. Culpeper, his sound divinity and abilities, in applying and interpreting of some passages of the holy Scriptures. As, 1. in his Treatise of *Aurum Potabile*, pag. 3. he writeth thus, Truly we considering how mysteriously God by his Spirit hath penned the Scripture to the sons of men, that none but his own chosen ones understand the mysteries of it, have ceased to question the integrity of Philosophers, in penning such riddles (meaning their writings concerning the *Philosophers stone*, *Aurum potabile*, &c.) that prophesie Isa. 6. 9, 10. which is so often repeated in the New Testament, must be verified; Go unto this people and say: hearing you shall hear, but not understand, and seeing you shall see, but not perceive,

ceive, &c. Let the judicious Readers, who have any knowledge of the Scriptures, consider, whether or not that Prophecie was penned only, or at all, in relation to the writings of these Philosophers, (as his words do clearly import) especially, seeing the Apostle Paul applyeth them more (yea only) spiritually, *Act. 28. 25, 26, 27.*

2. Page 9. of the same Book, from these words, (*Gen. 3. 22, 23, 24.*) *The Lord turned man out of the garden, lest he should eat of the tree of life, and live for ever; and he placed in the garden cherubims, and a flaming sword, which turneth every way to keep the tree of life; he inferreth as very probable, these conclusions; 1. That the place of the garden is still probably remaining, (and sure he meaneth, in it's primitive integrity) because Angels had been but a feeble guard, if they could not have kept out a little water, (viz. at the flood of Noah, when all the high hills that were under heaven, were covered fifteen cubits upward, Gen. 7. 19, 20. 2. That the bodies of Enoch and Elias may be there. It is admirable, that he would not give Moses a place amongst them, (possibly, because, being the only chief Magistrate amongst the Israelites, he looked too like to a King) but it is more probable, that if the garden of Eden was the Cœmitery of Enoch and Elias, that there also God buried Moses, and that the valley in the land of Moab, over against Beth-peor, where God buried Moses (*Deut. 34. 6.*) was the garden, But, it becometh no man to study wisdom*

wisdom in the matters of God, above what is written; and far less did it beseem Mr. Culpeper to doubt (if not contradict) those Scriptures, 2 King 2. 11. at the end. *And Elijah went up by a whirlwind into heaven.* Heb. 11. 5. *Enoch was translated, that he should not see death.*

3. Page 11. He writeth thus, *We read, Gen. 5. 3. that Adam begat a son in his own likeness; that is, as we understand, not of pure and temperat Elements, of which he was created, but of corrupted and mixed Elements (as if at his first creation of temperat Elements, they had not been mixed) and therefore mortal.* This rare Divine, alloweth no spiritual meaning unto those words. It is more probable, than any of these his opinions, that an *Assembly* of the most ignorant *Divines* (in the *English Commonwealth*, wherein he lived, & which licenced his impudent *Pento* scribble) would have rejected him, as insufficient, for translating, or interpreting of the Scriptures unto them.

In the next place, take notice of his treasonable and scandalous expressions, whereby he spoke evil of *Dignities*, *mocking at their afflictions*, in the day of their calamity; and so, in a superlative manner transgressing that command, *Obadiah 13.* I shall pass by with silence, those of them, with which he larded his *Almanacks* (when the Sun-like glory of *Monarchy* was eclipsed by the opaque *Republican Parliament*, whose inconsiderable and base constituent atoms, had no splendor; but what was communicat unto them at first, by

the King, the fountain of all honour) and desire you only to notice such of them, as were his most christian and charitable meditations, in relation to the fifth Commandment, when he was bidding farewell to the world; viz. when he was penning that Pamphlet, which he entituled *Culpepers Ghost*; In the second and twelfth pages whereof, he writeth such unchristian, treasonable and scandalous expressions, as cannot be mentioned, without committing the like crimes; and therefore I must forbear to insert them here, referring you to his own writings; and in these few words only give you my verdict of them.

Notwithstanding that Solomon (the wisest of men) who was inspired by the Spirit of God, did affirm, *Prov. 28. 2. For the transgression of a land, many are the Princes thereof; and, chap. 30. 21. When a servant reigneth, the earth is disquieted, and cannot bear it*; yet Mr. Culpeper was so foolish and hasty in his words, (*Prov. 29. 20.*) as to mock at the father of the state (*Prov. 30. 17.*) and not be afraid of the Judgment there threatned.

The *Supream Magistrat* of the *Universe*, having put an happy end unto the long and *Cimmerian* dark night of *Anarchy*, wherein such fiery meteors did appear, in our Brittish Horizon, but were not able to change the coats (and far less the hearts) of one truly loyal person, I shall not determine their altitude in the region of Rebellion, but only offer unto you some of the sanctuaries measuring *Reeds*, by which you may do it your selves

Titus,

Titus, 3. 1, 2. Put them in mind to be subject to principalities and powers, and to obey Magistrates, &c.

Exodus, 22. 28. Acts, 23. 5. Thou shalt not speak evil of the Ruler of thy people.

Ecclesiastes, 10. 20. Curse not the King, no not in thy thought, &c.

2 Peter, 2. 9, 10, 11, 12, 13. 1 Peter, 3. 10.

James, 3. 10 ver. 11.

I shall conclude this purpose, with those three sentences of Gods Word, which a good Poet might convert into a most pertinent *Epitaph* upon Mr. *Culpeper*.

PROV. 21. 24. Proud and haughty scorner is his name, who dealeth in proud wrath.

POV. 10. 31. But the froward tongue shall be cut off.

PRO. 12. 19 But a lying tongue is but for a moments.

Take now some of his most christian and charitable complements, which he passed upon the Physicians of the Colledge of London; of whom many, for their singular abilities, and diligence in their business, were honoured to stand before the King and Princes of the Land. In the second page of his *Epistle to the Midwives*, of England he calleth the Physiceans a company of lazy Doctors, most of whose covetousness outweighs their wits, as much as a Mil-stone outweighs a feather.

And in the *Epistle to the Reader* of that same book, who are they that cry out against Em-

pyricks? who? The Colledge of Physicians? And why do they so? they kill men for want of judgment; and who is the cause of this? themselves forsooth: for if they taught men the true rules of physick, is any man so madd as to practice false ones? I may now joyn them both together, like Simcon and Levi, brethren in evil.

I will not instance any thing more to this purpose (though there might be found as much of this sort of stuff in his writings, as many sheets would not be able to contain) only read his Translation of the London Dispensatory, where you will find most bitter railings against the Colledge; and in the close of his Epistle to the Reader, he taketh the heaven and all the powers thereof to record, that he never received the least prejudice from any of them, that would have extracted revenge from a melancholy breast. It appeareth that Mr. Culpeper would have wiped off the aspersions of hatred towards the Colledge, by these last words; but in so doing he resembleth one, who with inky hands would do away a black spot from off his own face, and thereby he rendereth himself a most proper object of the censures of all ingenuously-minded persons, who ever were, and will be, most ready to acknowledge with honour and love, the virtues of their very enemies, and detest that superlative baseness of envying and detracting from the deserved elogies of such as never did them wrong.

Cesar

Cesar caused re-edifie the demolished statues of Pompey, though his enemy, and gave this most generous reason for it, *Least the honour of so brave a Commander should have bled and languished under mine eye.* Doubtless the ground of this his implacable and unparallelable hatred, was only the merit of those *Æsculapian worthies*, whose deserved estimation should not have been envied; especially, seing the Almighty God, did inhibit the very envying of evil men, Prov. 24. 1, 19. and the Prophet David did reprehend himself for being envious at the prosperity of the wicked, Ps. 73. 3. The most charitable censure which can be put upon Mr. Culpeper for those expressions, is that of Solomons, Prov. 11. 12. *He that is void of wisdom, despiseth his neighbour, but a man of understanding holdeth his peace.*

I will now inquire, if Mr. Culpeper had any knowledge or estimation of the most excellent Art, *Chymistrie*. Surely the vulgars will censure me, as most ridiculously uncharitable, in doubting of either; seing he hath written (as they say) a most learned *Treatise of Aurum Potabile*, and *Chymical Institutions*, in his *School of physick*, printed, anno. 1659. For determining of this controversie, I will only propose some *Querees*, according to which the judicious Reader may conclude as he pleaseth.

Quer. 1. Is it probable, that if Mr. Culpeper had understood any thing of the art called *Chymie*, in anno. 1648. or 1649. (at which time he began

gan to write) would he not have manifested some what of it in his *Translation of the London Dispensatory*, when he came to the *Chymical* prescriptions (seeing he did censure many of their other prescriptions, as informal, &c.) and not have translated them *verbatim*, without any animadversions; neither, at the beginning (when writing of the *Oyl of Worm-wood*) have given this advice? *Your best way to learn to Still Chymical Oyls, is to learn at an Alchymist: for I rest confident, the greatest part of the Celledge had no more skill in Chymistrie, than I have in building houses.*

Quer. 2. If he had understood this ingenious and usefull art, would he have, in the close of his dayes (when he penned his *Ghost*) given it such a slender and detracting commendatory testimony, as he did page fifth and sixth, in these words. *And as for Chymistrie, of which I had a mighty high opinion in my life-time, I must confess, though I still acknowledge the Art to be very ingenious and usefull to search into the mysteries of nature, and the best key of natural Philosophy, and that by help thereof, some very usefull medicaments are daily made, as my Aurum Potabile, of which I left a Treatise, yet I do do now much doubt, whether a general supply of medicaments, for all cases obvious in practice, can by Chymistrie be afforded, better than the often approved, and by experience confirmed, Galeni-*
cal

cal and a Hippocratical remedies? It is too too evident, that if he had not left that *Treatise of Aurum Potabile*. (which is the only usefull medicament which he acknowledgeth to be made by *Chymistrie*) to have been published in his own name, the most excellent Art, would not have been so favourably mentioned.

Quer. 3. If Mr. Culpeper had been instructed in the principles of this art, as would have be- seemed one, in whose name *Chymical Institutions* and a *Treatise of Aurum Potabile*, were to be published, would he have, in those *Institutions*, begun with, and (for the most part) proceeded in the practical part of the art, and that only according as it had been written of by others, above twenty times, before he saw the light of the Sun? Surely, when he penned those *Institutions*, he did forget, that the learned *Sennertus*, and all others who ever wrote *Institutions* to any Art, did confine themselves unto the *theoretical* part, describing only the necessary *præcognita*, before the *practical* should be attempted.

I will here give you a taste of his great skill in this Art, by mentioning some of his expressions in the ninth Chapter of those *Institutions*, where writing of the *Quintessence* of every simple water; he describeth it thus, *Quintessence is the fifth part of every thing having form and substance, and a most subtile spirit drawn from its body, &c.* And a little after, *Quintessence-----solely by its self, hath none of the four qualities in it, viz.*

watry, airy, fiery or earthly, which could be discerned or discovered, by the judicious inquiry of the most skilfull Philosophers.—Therefore, for a conclusion observe, that it is neither hot nor cold, nor moist nor dry, but is a thing of a temperate nature, exceeding all the Elements which are under heaven. Then he affirmeth, that it is chiefly to be understood of Wine, the spirit whereof he calleth the Quintessence, and sheweth the vulgar manner of destilling it, chap. 10. and biddeth lute the vessels, that the animal and vegetable Virtue may not exhale out of the Wine. Is it not admirable, that Mr. Culpeper, (upon whose Diet, Schooling and being at the University of Cambridge, four hundred pounds were spent, as is affirmed by that most adulatory Penner of his life, prefixed to his School of Physick, should affirm such paradoxes, and never give one reason (wise or foolish) for proving of any of them. As, 1. That any part of a Body, composed of the four Physical Elements, is not composed of the same principles, and doth not partake of the same qualities with that Body, of which it was a constituent part. If he had proved it by sure demonstrations, he had truly deserved the
 title

ricle of *Magnus Appollo*, to which he was busily aspiring in this age. 2. *That the spirit of Wine, Aqua vita, &c. are not at all hot.* 3. *That Wine containeth animal virtue.* These two being so ridiculous, need no other anima-adversions, than what a critical *Divine* said once of anothers writings, *vidi & vixi*. Those *Institutions*, which contain such doctrine, so methodically disposed, do challenge to the Author of them, the very same testimony, which Mr. *Culpeper* (though undeservedly) gave to the most part of the *Colledge of Physicians at London*, viz. *that they had no more skill in Chymistrie, than Mr. Culpeper had in building houses*; especially seing he is such a fool, as to contradict what he wrote formerly, in his *Key to Galens method of physick*, Sect. 1. when writing of *Medicines temperat*, thus-----*It is impossible that any medicine can be temperat.*

Quer. 4. If Mr. *Culpeper* had been instructed in the principles of this worthy Art, would he not have discovered some of that sort of knowledge, in some of his other writings? I do declare, that (according to my best remembrance) I never read any thing in any of his writings concerning this Art, saving what hath been just now mentioned, and some few lines in his *Epistle to the Reader*, prefixed to his *Directory for Midwives*, wherein he, who pretended to be the greatest and most zealous promoter of the knowledge of natural and medicinal things, for the good of his Country (as may appear from those ridiculous words in his

Ghost

Ghost, pag. 13. I dare say I have been a greater teacher of physick, and have had in comparably more disciples in that Art, than all the fellows of Amen Colledge, since old King Hary gave them their Charter doth scoff at, and vilipend natures key, and rail against that learned and skilfull operator to the Colledge, Mr. William Johnson, demonstrating, that his great zeal was void of the knowledge of nature, and that his chief designs were, 1. the acquiring of money from the Printers, for buying of Beer and Tobacco; for proving of which, take notice of these words, which the Authors of the Preface, prefixed to the compleat Midwives practice enlarged, in their Preface write thus. --- Its almost a miracle to us, that Mr. Culpeper, a man whom we otherwayes respect, should descend so low, as to borrow his imperfect Treatise from those wretched volumnes, some of which are before mentioned; and we must deal faithfully with you, that that small piece of his, entituled, the Directory for Midwives, is the most desperately deficient of them all, except he writ it for necessity, he could certainly have never been so sinfull to have exposed it to light.

2. The

2. The erecting of the *Trophæes* of his own fame, upon the ruines of others, whom he was still decrying. His words are these, *when the Temple of Diana was on fire, ont jumps the image that fell down from Jupiter, from Ephesus to England at one leap, whom all the world adore (some few children of my mother Nature excepted) and silver shrines must be made for her still, Demetrius the Silver-Smith having taken him a shop in Amen-Corner.*

The judicious Reader of these things, will surely think himself obliged to ascribe the penning of that *Treatise of Aurum potable*, only to Dr. Freeman, whom Mr. Culpeper Relict (in her *Epistle* prefixed to the said *Treatise*) acknowledged to have studied, and attained to the perfection of it, joynly with her Husband.

Be pleased to take a view of some things in his book, entituled, *The English Physician*, &c. and first of its *Title-page*, wherein are these three things reprehensible; 1. He calleth it a *compleat* (fearing least others would not) *Method of physick*; whereas it containeth only a confused (saving that it is alphabetically almost disposed) description of English Herbs, and their virtues, without any physical precepts, either methodically or confusedly ordered. For, by a *Method of physick*, nothing can be understood, but a methodical description of the Art of Physick, containing the

the causes, signs and cures of diseases, such as is *Philip Barrough*, his method of physick. 2. He promiseth, thereby to teach a man to preserve his body in health, or cure himself, being sick, with threepence charge, with such things only as grow in England. And yet in the description of the first Herb, *Amara dulcis* and its virtues (and through the whole book almost) he prescribeth three pynts of white wine, for to boyl the wood and leaves into. Surely the most favourable construction which can be put upon this discrepancy, is, that to cause the book sell well, it behooved to have that blazing and dazling promise upon its Frontispiece. But,

Vino vendibili non opus est Hedera,

That is,

*Wine that is recent in the Seller,
Needs not an Ivy for its Banner.*

Moreover, it is evident from these words, that Mr. *Gulpeper* thought, that this book of his, would be sufficient to inform any man concerning the nature and cure of his disease, (though it containeth nothing of the principles of Medicine; at least, that any man being informed of the natures of Remedies, is instantly enabled to cure a disease. Was not this a most speedy and effectual course which he did undertake, for multiplying and patronizing

patronizing the number of ignorant Doctors (who usurp the title, and *have not so much Latin as would buy a loaf to a Dog*) and Empiricks of both Sexes, who are not able to distinguish one disease from another. It will not be amiss to insert some stories, concerning some such persons, as first,

One who pretended to have some skill in physick, used to give these five rules, as the most excellent, for preserving of health. 1. Fear God. 2. Purge melancholy. 3. Live temperately. 4. Extortion not your stomach. 5. Keep a good dyet.

Secondly, There is a Doctrix, concerning whom I will relate unto you these most certain stories.

1. She desired a Gentleman, going for *London*, to bring home to her some Oyls. When he desired to know what kinds of Oyls, there being Oyls of different natures and operations, she replied, *Any Oyls, because I intend to try conclusions.*

2. A sickly *Rustick* came unto her, complaining of a pain in his neck, and betwixt his shoulders. She affirmed his disease to be *the Ripples in his neck*, and essayed to cure him thus; every morning he got a good draught of warm *Ale*, with some *Ginger*; and so soon as he had drunk that, she put him into the *Barn* to thresh a *Barley* stack of her own. Thus continued he under physick till the stack was threshed.

A Rustick woman came unto her, to get her advice concerning the Gravel, wherewith she was much troubled. The Doctrix gave her this advice, for causing the stone fall down into the neck of the bladder, *You must stand leaning forwards with your two hands, upon the arms of a great chair, setting your feet far asunder; then let your Husband take a broad shovel, and give you four or five good clanks or strokes upon the buttocks with it.* In my own audience she confessed this story to be true, unto several considerable persons.

4. A valerudinary Rustick came unto her, and desired some things for his health; to whom (after some discourse, and stedfast looking into his countenance) she gave this answer, *truly friend you will die.* The person then (with a more melancholy aspect demanded *how she did know that?* But she declined to give him a reason for her prognostick, affirming, *that it was not for him to know that: For (said she) it is sufficient that I know it.* At length, being further pressed, she told him, *that he had drunk a foul or unclean drink.* The Rustick answered, *Mistress, you know, that we who are country people, drink nothing but small drink, or clean water -- No no (said she) but you have drunk a drink into which the Moon hath shined.* Mistress (said he) *you know we use to go to the Well at night, and drink water though the Moon be shining.* But (said

(said she) the Moon hath shined into the cup wherein your drink hath been. Notwithstanding of this discourse, the simple fellow condescended to take from her some potion or other. The reason of this ridiculous expression concerning the moon, is none other than this; she having (to my certain knowledge) Mr. Culpepers *English Physician or Herbal*, hath read in it, that some herbs are herbs of the Moon, others herbs of the Sun, and others herbs of Mars, &c. and do cause such and such diseases, and cure others; and having some rude and ignorant conceptions, concerning such things, did utter that ridiculous prognostick and reason. It is not much to be admired, that a silly woman had such shallow imaginations, seeing the most learned and famous Mr. Culpeper was so presumptuous, as to enslave all vegetables to a necessary and unavoidable dependence, upon the influences of the Stars. which were not created untill the fourth day of the creation, which was the day after the creation of vegetables. The consideration of which, made the truly most learned and pious Dr. Thomas Fuller (in his 18. *Scripture-observation*, in his book, entituled, *Good thoughts in bad times*) resolve, hereafter to admire God more, and fear Astronomers less.

It is most certain, that there are many ignorant *Empiricks*, who (by such books as Mr. Culpepers *English Physician* is) know as many medicaments and their virtues, as the ablest of Physicians;

cians; and yet they are, and will still be, most unsuccessfull in their enterprizes: because ignorant how to make use of them in due season. The consideration of this made famous Hippocrates begin his *Aphorismes* thus, *Vita brevis, Ars longa, occasio volucris, experientia periculosa, judicium difficile, &c. id est, secundum Hænnium, Nemo presentem agnoscit occasionem, nisi ille qui judicio, & experientia excellit.* Such ignorant fellows, have often reason either to bewail their blidd precipitancy, or to ruminat upon that old Proverb,

Fronte capillata, post est occasio calva.

An able Physician, considering the presumptuousness of such persons, said well, , *Multa dantur Medicamenta, nulla remedia; nam solus medicus prudens & sapiens, ex medicamentis, remedia facit. Medicamenti etenim anima, est occasio ipsum exhibendi.* That is, there be many Medicaments, but no Remedies: for only the prudent and wise Physician maketh Remedies of Medicaments: for the soul of a Medicament, is the season of applying it.

The Christian Readers of Mr. Culpepers writings, which contain such excellent stuff, as you have here before mentioned, may consider whether or not, the *Publishers, Re-printers and Sellers*

Sellers of his writings (or other mens in his name) have not reason to take to themselves that most excellent advice of Mr. Culpepers (being the last words of his Ghost, which was the last of his writings) which he left in *Legacy* to the Printer of the book, entituled, *Culpepers last Legacy*, without his own knowledge, in these words, *If he leave not off such tricks, I would advise him to pull down the sign of the Angel, and hang up the Devil, or the sign of his Cloven-foot, in stead thereof, that people may guess by the sign, what commodities he deals in, and know where to have them, without seeking any further about the Town. For when they see the father of lies and impostors, or his mitred foot hang'd up, they may be sure that love lies and sophisticated forgeries (as too many do) where to have their turn served.*

3. In the Title-page also, he promiseth to shew the time of gathering all herbs, both vulgarly and astrologically; but when he cometh to treat of gathering roots (pag. 382. and 383) he only controverteth a little concerning descending of the sap to the root in Autumn, and its ascending in the Spring, and laughs at it as a tradition. At length, he determineth the controversie thus, *The truth is, when the Sun declines from the Tro-*

pick of Cancer, the sap begins to congeal both in root and branch; when it toucheth the Tropick of Capricorn, and ascendeth to us ward it begins to wax thin again, and by degrees, as it congealed. This is an assertion of Mr. Culpepers, which he wrote, after that he had consulted (as he writeth in his Epistle to the Reader) with his two brothers, Dr. Reason and Dr. Experience, and that after his voyage taken to visit his mother Nature. Likewise after his asserting, that neither Gerard nor Perkinson, nor any that ever wrote in the like nature, gave ever one wise reason for what they wrote, but trained up young novices in the school of Tradition, and did teach them, just as a Parrot is taught to speak.

From this assertion of Mr. Culpepers, it is most evident, that he hath been of opinion, 1. that the natural withering of herbs in autumn, whilst they are not cut down, proceeds only from the congealing of their sap: because of the Suns declination from the Tropick of Cancer. The assertion he learned from Dr. Tradition, and his pretended Dr. Reason inferred from it this opinion; to which I oppose this, as favouring of more natural reason, and less reasonless tradition. The root of the herb, having in the Summer-time, furnished the stems, &c. with vegetative spirits, which it conveyeth by the aqueous humidity, these

these spirits being distributed amongst the leaves, flowers and seeds, provident *nature* appointeth the evaporation or exhalation of the same, by the *Suns* heat, as an enemy to their conservation, and a great accelerator of their putrefaction. 2. He hath thought, that the sap of the roots of herbs, is not so thin in the middle of winter (when the earth, about them, is most succulent or wet) as in the middle of summer, when the ground is not half so wet. But if he had required the judgment of *Dr. Reason* concerning this affair, he would have told him, that the vegetative soul, remaining in the root, doth, in the winter time, attract more sap to it, than it had at the end of autumn, for nourishing and strengthening it, the better to resist the brumal cold, which would be ready to kill it, after the loss of so many spirits, as it hath communicated unto the seeds, and other parts, which it sent forth in the Summer and Autumn, and after the great cold is gone, it beginneth to operate upon that sap, sending it forth into new leaves, stems, &c. which it alimenteth afterwards with new sap, which it attracteth from the ambient earth.

Hence it appeareth, that the most convenient season for collecting of roots, is the Spring-time, immediatly before they put forth new leaves or stems. And I am confident, that Mr. *Culpeper* never eat *Parsneeps*, but in winter, though he did it not for this reason. Let the judicious *Reader* consider, if this be not a very clear hint-

ing at the reason of that assertion of Mr. Culpepers (chap. 1. of leaves of herbs or trees) which he (who wrote as before, in the *Epistle*) doth most impudently set down, without any reason, subjoyned unto it, in these words. *The leaves of such herbs as run up to seed, are not so good when they are in flower as before, some few excepted, the leaves of which are seldom or never used.* But here Mr. Culpeper seemeth to answer for such omissions, in that learned and compleat *Method of Physick*, by these words, concerning the book, in his *Epistle to the Reader*; *In mine, if you view it with the eye of reason, you shall see a reason for every thing that is written.* But these words, do rather pre-require more reason in the *Reader*, than is in the book.

In the second place take notice, how he commendeth this his book. You read before, that in the *Title-page* he calleth it *A compleat method of physick*; and in the *Epistle to the Reader*, he writeth thus; *The profit and benefits arising from it, or that may accreu unto a wise man from it, are many; so many, that should I sum up all the particulars, the Epistle would be as big as the Book*; and then he reduceth all to three general heads, which no man, but he who hath the forementioned eye of reason, and can bring but that which is not there-benn, will be able to discover. Mr. Culpeper, his sounding forth his own praises, after this manner, and his frequent satyirical reflections upon others, doth directly
 graspgress,

transgress that excellent precept, which *Dionysius Lato* gave to his Son.

*Officium alterius multis narrare memento,
Atque aliu, cum tu benefeceris, ipse sileto.*

As also the more considerable sentences of the holy Ghost, *Prov. 27. 2. Let another man praise thee, and not thine own mouth, 2 Cor. 10. 18. For not he that commendeth himself is approved.* If he had remembred, that the coats and garments, which *Dorcas* made in her life-time, did commend her frugality most after her death (*Acts, 9. 39.*) he would have been more sparing in penning, and causing print such commendations of his own writings in his life-time, and rather have reserved them for to have been enlargements, or *flesh and sinews* to his *Σκελετον* like Ghost, which was printed after his death.

In the third place take notice, that though Mr. *Culpeper*, in his *Epistle to the Reader*, did reprehend *Gerard, Perkinson, &c.* for never giving one wise reason for what they wrote, &c. yet all along through the book, he doth most confidently take upon him to determine the degrees of heat and coldness, or driness and moistness of herbs, according as did the most fabulous writers, who were the first authors of such like traditions. Take this one instance, as the most considerable (because a part of that discourse, which in the *Epistle* he calleth *the Key of the whole book*) which favour-

eth of most presumptuous confidence, and reasonless tradition; and it is concerning *Worm-wood*, of which he writeth thus, *it is hot and dry in the first degree, viz. just as hot as your blood, and no hotter.* Should such a Critick have so peremptorily asserted, without giving any reason for it? at least, should he not have prefixed to his book a rational rule for discovering the temperaments of herbs in general, seeing all others who wrote before him, concerning herbs, did assert the like, and never gave the least shadow of reason for it. Surely he had a good opportunity for the doing of this, in his *Key to Galens method of physick*, (subjoyned to his *Translation of the London Dispensatory*) sect. 1. where he writeth of the *temperature of Medicines in general*, and where he hath a discourse, not exceeding eight lines in 8^{vo}, neither affording two grains of instruction to the Reader.

Fourthly, let the judicious Reader consider what he hath written at large concerning *Worm-wood* (which discourse, he called *the Key of the whole book*; and in the close of it, he calleth it a *Jewel, more worth than a Diamond*; and asserteth, that in the words of it, lies a *Key which will unlock the cabinet of Physick*) for (as Mr. Culpeper wrote concerning some places of Scripture, translated into English) *It would make a man sick to see it, being a discourse stuffed with variety of most ridiculous impertinencies*; particularly where he saith, that *where Dr. Reason dwells*

dwells not, Dr. Madness dwelleth, and Dr. Madness bringeth in Dr. Ignorance; Dr. Folly, Dr. Sickness and Dr. Death.

You must excuse my not meddling with any thing in his writings which is *astrological*: For I acknowledge my self not to be sufficiently acquainted with the principles of that Art, and therefore do refer him unto others. Only I will say this, that if his *Astrology in Medicinals* be no better than it (and the *Astrology* of others more famous than he) was in *Politicks*, in the time of the *Commonwealth* (when *Monarchy* was said to be eternally exiled from *Great Britain*, by all the powers of the heavens) they will mis-spend their time, who will take the pains to read.

Concerning his great skill in the *Pharmacopoeitical art*, which he endeavoureth to manifest in his *Translation of the London Dispensatory*, and Chapters subjoyned unto his *English Physician*, I will only say this, that whosoever shall compare those his writings, with the ingenious and learned *Animadversions of Dr. John Zuelfer*. upon the *Augustan Dispensatory*, will be soon convinced, that an *Apprentice* of one years standing would have written as well, if not better than he did.

Take now a demonstration of his matchless impudence; which is this, in his *Translation of the London Dispensatory*, when he describeth the virtues of the *Vinegar of Squills*, prefixing his own name to them, he doth it, according to *Galens* his words, which he had stolen, either out of

Galens own works, or else from the *Augustan Dispensatory*. Yet notwithstanding of this, he had so much impudent confidence, as (a little after) to challenge the learned *Physicians* of *London*, for stealing the prescript of the *Lockock* of *Purflain*, from *Ausberg*; and then addeth these ridiculous and scurrilous words, *you shall shortly hear the Augustan Physicians come, with how and cry after the Colledge, and cry, stop thieves.* Let others remember this proverb, which he forgot.

Turpe est doctori, cum culpa redarguit ipsum.

Before I conclude, I will acquaint you with this true story: An able *Physician* of our Nation, being demanded, by one of Mr. *Culpepers* disciples if he had read any of Mr. *Culpepers* works? answered, *I thank God, I never had so much leisure as to do it.* It having been my misfortune to have some leisure, for that end, I have given you a taste only, of what I found in such of his writings, as providence did throw into my hands. And all that ever I learned from them is this, which I look upon as the *Corollary* of this discourse.

Mr. *Culpepers* writings, are only either other mens writings which he hath translated into English, or collections out of other mens works, which he hath deformed with malicious, scurrilous, detracting and railing expressions, and studied

died to beautifie with some ridiculous, and (sometimes) impertinent jests.

So that that sentence (which you will find in the *Epistle to the Reader*, prefixed to his *Translation of the London Dispensatory*) may be most pertinently applyed unto himself, *mutatis mutandis*; *A Physician riding (passing) in Plush (Print) and not one grain of wit, more than was printed before he was born.* By these words he doth well condemn those, who rest satisfied with what is already discovered and known unto all, and press not forward unto new discoveries, which ought to be the only exercise of the *Scholars* (especially *Physicians*) of our age, wherein is abundance of most excellent books already published, concerning all subjects; and yet there was never a scribler in the world, which made the *Press* ruminat more, to little or no purpose, than he did.

For a conclusion to this discourse, I will answer one great objection, wherewith I will, very probably, be troubled hereafter; which is this, since Mr. *Culpeper* his death, his relict, Mrs. *Alice Culpeper*, hath in print, by way of *Epistle*, renounced many books of her Husbands, printed in his life-time, one whereof, called *Culpepers last Legacy*, &c. she denieth to have been written by him: *because it is not written according to her Husbands lofty and masculine stile-----and in such a solemn valediction, he could not, possibly, have forget his wonted respects to the Colledge* (some

(some whereof we have mentioned before) to whom he did so frequently address himself in divers of his writings; and others of them are in *Epistles* subscribed by himself (viz. the *English Physician*, and *Directory for Midwives*, which I have seen) alledged to be very falsely printed, and to contain many gross mistakes. So that those passages, which I have before mentioned, out of his writings (and particularly that ridiculous assertion concerning *Barrenness*, in his *Directory for Midwives*, Book, 3. Sect. 3. at the end, printed, 1652. but left out of those which were since printed. The words are these, *I will tell you no more than I have known tried, the cure is easie, and was done by the man only, who could not give his wife due benevolence, making Water through his Wives Wedding Ring, so there was one superstition helped another.*) may possibly be alledged to be such mistakes, as he, or rather she, in his name, did dis-own. For answer, 1. I conceive that it is a gross reflection, upon her Husband, to make people believe, that he was such a fool, as could not keep his papers, till they had gone to the *Press*, with his own knowledge. 2. It is probable, that when *Mistress Culpeper* shall die, some of her relations will, in her name, renounce that *Epistle* of hers (which I found prefixed to the *English Physician*, the *Treatise of Aurum Potabile*, and the *Directory for Midwives*, all reprinted, 1656. after his death) because she would not have been so much unchristian, as to have denied

nied that book (*Culpepers last Legacy*) to be her Husbands, especially because it containeth none of his wonted respects to the Colledge; which were nothing, but most unchristian and scurrilous railings against men, by serving of whom, he would have been honoured, but he was ever so foolish as to forsake this mercy.

Having called to remembrance, that *Distichon* of *Cato's*.

Contra verbosos, noli contendere verbis.

Sermo datur cunctis, animi sapientia paucis.

I will proceed no further. Farewell.

Post-script



P O S T S C R I P T

T O

C U L P E P E R S G H O S T.

Animula vagula.

I am confident, that since thy arrival at the *Elysian fields*, and conference with so many able scrutators of *natures* mysteries, as are mentioned in thy book, entituled, *Culpepers Ghost*, thou hast attained the knowledge of such things, as thou wast not well acquainted with in this world (as appeareth from thy expressions, page 5. and 6. concerning *Chymistrie*) and therefore I will propose unto thee some *Quæres*, to which I desire thee to return answers with the first *Post*.

Quer. 1. What is it in the *Nettle*, which at the first touch offendeth a mans hand, and sudainly vesicateth the skin? seing *Cantharides* do vesicat as strongly, though not so soon. All that you have said of this in your *English Physi-*

cian

rian (which in the *Epistle to the Reader*, you affirmed to contain a reason for every thing, that is written) is this, *Nettles* are so well known, that they need no description at all; they may be found by feeling, in the darkeſt night.

Quer. 2. Why *Cantharides*, which do vesicac but slowly, are so prejudicial to nature, when immoderately used, not only internally, but also externally (as appeareth from their inimical operation upon the *Bladder*) and yet *Nettles*, which vesicac so sudainly, do no harm, when used as a good Pot-herb?

Quer. 3. Why the decoction of *Nettles* provoketh the *Menstrua*; seing the juyce of the leaves stayeth bleeding at the mouth? as you affirmed in your *English Physician*, without giving any reason, for averting the challenge of improbability.

Quer. 4. Why the *sensitive plant*, contracteth it self at the touch of man?

Quer. 5. Why recent *Red Roses*, being boyled amongst *Oyl*, do not communicat their redness unto the *Oyl*, as *Chamomel* doth its greenness?

Quer. 6. Why the eyes of a *Cat*, and the flesh of many fishes, ar luminous in the dark, seing the most scintillant *Diamond* is deficient in this?

Quer. 7. Why the flesh of fresh-water fishes, are not at all luminous in the dark?

Quer. 8. Why the spirits of *Sulphur* and *Vitriol*, do intend the redness of the *Tincture* of *Roses*, when extracted by warm water.

Quer. 9.

Quer. 9. Why the smoak of inflamed *Brimstone*, maketh a recent *Red-rose* of a white colour, when held unto it?

Quer. 10. Why the *Oyl of Tartar*, being instilled into the said *Tincture*, or put upon the whitened *Rose*, destroyeth the redness of the one, and maketh both contract a green colour?

Quer. 11. Why the *Tincture of Red-roses*, having a little *Allum* dissolved into it, and tasted by a man, maketh his spittle of a green colour, seeing the *Allum* did not alter the colour of the *Tincture*?

Quer. 12. Why *Dogs* which take much pleasure in killing of wilde fowls (or in serving such as kill them with Guns) as *Plovers*, &c. will eat none of their flesh or bones?

Quer. 13. Why doth not the *Sugar of Syrups*, made of acide juices (as of *Lemons*, *Sorrel*, &c.) crystallize (after they have been boyled too much) as the *Sugar* of other Syrups, viz. the *Syrup of Violets*, *pale Roses*, &c.

Quer. 14. What is it in *Aloe* which is so eminently astringent, and stoppeth the flux of blood, when externally applyed to wounds, seeing it is very purgative, when taken internally, and is denied to *hamoptoical* persons, because of its opening of veins, making orifices upon them, as if it were *corrosive*?

Quer. 15. Why doth the weather of every *Moon*, exactly correspond to the weather of the *Thursday* before the change?

That

That is, if the *Thursday* before the change of the *Moon* (whether the change upon *Wednesday*, *Friday*, or any other) be a fair day, such will the weather be all the next *Moon*. If there be rain, wind, snow, hail, &c, in the morning, before-noon, after-noon, or at night, such will the weather be at those times of the *Moon*, answering such times of the day. This I have often observed never to fail, excepting three times in the year, viz. 1. at the end of *March*, the three last dayes whereof are commonly called the *borrowing dayes*, and use to be tempestuous. 2. In *May*, when there useth to be two or three dayes of bad weather (according to the proverb, *Come it soon come it late, in May comes the Cow-quake*) which are so cold, that the *Kine* do tremble. 3. At the beginning of *August*, when there are much rains, which cause the *Lammes-flood*. Surely thy skill in *Astrology* will soon afford a reason for this?

Quer. 16. Why *Antimony* being vitrified, not only retaineth its vomitive quality, but also enjoyeth it in a superlative degree? seeing all other things almost, do lose their primitive qualities, when reduced into *Glass*, by reason of the destruction of their seminal forms.

Quer. 17. What is it in the yoke of an *Egg*, which is the best (if not the only) mean, by which *Turpentine* is rendred dissolvable by an aqueous body?

Quer. 18. Why cannot *Quick-silver*, being once dissolved by the strongest *corrosives*, be detaigned in that condition when exposed to the heat

heat of fire, seing *Lead* and all other *minerals*, being once so dissolved, are inseparable, by the greatest violence of *Vulcan*?

Quer. 19. From whence proceed *Worms*, which are found in green *Pees*? for it is improbable, that they proceed from the *sperm* of such like animals, deposed upon the husk, containing them, seing there appeareth no blemish upon it, nor passage through it. And far less is it probable, that they are engendred in the *Pees* themselves; seing it is most certain, that *omne Ens gignit sibi simile*, except there be a *degeneration*; because of an aberration of *nature*, as when a more noble creature degenerateth into a less noble, of the same kind, as when *Barley* degenerateth into *Oats*, or when *Worms*, &c. do breed in the bodies of animals, or in their carcases after death, *secundum Harveum de Generatione animalium, Exercit. I.*

Quer. 20. Why the feet of a *Swan* are so black, seing all her feathers are most white? In answering to this, have a care, lest (reflecting upon your often approved, and by experience confirmed, *Galenicall remedies* (as you wrote in your *Ghost*) and *Method of physick*, to which you made a *Key* of the softest mettall, and exposed it to sale, adorned with the roust of Ignorance and Tradition, particularly, *chap. 6.*) you attribute this blackness, to the *melancholick humor*, which *nature* hath secerned to her feet. For I hope, that you, who was a *Translator of Anatomists*, will not so much injure

injure the *Splen*, which was *Galen* his receptacle of *Melancholy*; neither ascribe the yellowness of her bill unto *Choler*, lest you offend the *Gall*.

Quer. 21. Why doth the *Heron* bow its neck when it flieth; seing the *Swan* (which hath a greater body, and a longer neck) doth extend its neck to its full length in flying. Surely if you shall alledge, that the blackness of the *Swans* feet proceedeth from *melancholy*, you will be perswaded, that the *Swan* should rather bow its neck, for fear of receiving prejudice by extending it. For (according to *Galen*) *melancholy causeth fearfulness*.

Quer. 22. Why the *Sheep* of *England* have no horns, but tails which reach the ground? seing the *Oxen* and *Kine* have horns of superlative bigness.

Quer. 23. Why *Wilde fowls* of one kind are all of one colour, seing tame fowls are of most different colours?

Quer. 24. Why a man ganteth when he seeth another man do so? yea, I heard of one, who could not forbear ganting, if the lid, or cover of a *Stoup* had been moved once or twice up and down before him.

Quer. 25. What is it in *Oat-bread*, which being smelled at by one who is taken by the Nose by *Mustard*, causeth the trouble?

Quer. 26. Why doth the feathers of *Doves* spoyl the feathers of all other birds, with which they are mixed?

Quer. 27. Why *Coneys* do repair most frequently out of their holes, to feed, only whilst the *Sea* is ebbing?

Quer. 28. Is this opinion of the vulgars true, viz. that the treading of *Water-fowls* out of the water, doth not fecundate their Eggs? And if it be certain, what is the reason of it?

Quer. 29. Why a *Plivers* breast (which is white in *Harvest* and *Winter*) becometh black in the *Spring*, and continueth so all the *Summer*?

Quer. 30. Why the *Ewes* in *Orkney* (where the *North-pole* is elevated about sixty degrees) have ordinarily two *Lambs*, frequently three, and sometimes four? As I was informed by a *Gentleman* there, who had an *Ewe*, which at one time brought forth four *Lambs*, three whereof were lame in the fore-legs, and went on their knees.

Quer. 31. Why the *North-wind* doth not commove the *Sea*, so greatly as other winds do?

Quer. 32. Why the *West-wind* doth still calme at night: when the air is not cloudy?

Quer. 33. Why persons which have had the *Tertian-feaver* are still distempered before stormy weather; and whilst the *East-wind* bloweth?

Quer. 34. Why *Sea-fowls* extend their legs towards their tails, in flying; and *Land-fowls* (the *Heron* and *Lap-wing* excepted) do contract their legs?

Quer. 35. Why are there no *Moles* in *Ireland*? or rather, why doth the earth of *Ireland* kill *Moles*? For which reason some of the inhabitants

rants of the *South-west* parts of *Scotland*, have brought earth from *Ireland*, to put into their Gardens, for that end.

Quer. 36. Why in the *Canicular* dayes only a man cannot see the vapor which proceedeth from his own, or anothers mouth or nostrils, in breathing, when the Sun shineth upon him?

Quer. 37. Why persons who die not violent deaths use to expire at the Full-sea, or at a low-water? This I have observed, seldom, or never to fail, and that within four or five minuts of these times.

Quer. 38. Why the strongest Corrosives will not operat upon common *Glass*; seing *Spanish* or *French Wines* do operat upon the *Glass* of *Antimony*?

Quer. 39. Why the bottom of a *Pot*, which containeth a boyling liquor, is tractable by a mans hand; but becometh untractable when the liquor is poured out?

Quer. 40. What is the irrefragable reason of the *Echo*, its once or twice repeating a mans words articulately?

Quer. 41. Why in *Fairay-Sound* (betwix the Isles of *Fairay* and *Etha* in *Orkney*) the *Sea* runneth north-east for the space only of three hours in *flowing*, and nine hours south-west in *ebbing*? This is the course of the *Tide* only in the middle of the *Sound*, which is but one mile broad.

Quer. 42. Is it true that black Wool will admit of no other colour? And if so, what is the reason of it?

Quer. 43. Why the Jaundize is cured by medicines of a yellow colour? as Rubarb, the juyce and flowers of Celledon, Saffron, &c.

Quer. 44. Why the males of birds of Prey are less than the females?

Quer. 45. Why are not children, under two years old, sick at Sea?

If thou shalt give rational answers unto these *Queres*, I am confident, thou shalt gain more estimation, than by all thy *labours under the Sun*; and an act of indemnity for the many transgressions of thy *Pen*, which was only busied about things, the knowledge of which (as thou did'st rescribe) was so stale in the world, before thou came into it thy self, that no delicat palat would have used it, when such Clusters of *Grapes*, might have been had, out of which, a more rational and rare *Elixir*, might have been extracted, for refreshing of the stomachs surfeted with such musty and rancide fare, as you did alwayes set before them.

F I N I S.

Q: 46. 38 by the Salts of Corrosive sublimes Mercurius
does not dissolve per deliquium q^a afforated to the stones
of the Mercurius, but q^a they are united to the stones of
the deliquium, in the distilled Butter thereof?
Q: 47. 38 by the Salt of Tartar (which of all salts is
easiest dissolved by deliquation) when afforated to the Lye
of vitriol, the Tartar vitriolat, will not redissolve per
deliquium?

Q: 48. 38 by Ronge, which lost its greenness by corrosion in
Egyptian, under the sun q^a applied to ulcers? feigns
No such alteration, happens to it changed or Minium,
q^a mixed in plaisters and applied to ulcers.

Q: 49. Why the Urine will not afford the Lye and Spirit,
as other spirits do by distillation?

Q: 50. Why small White stones (which are found at the
bottom of the bladder) do pierce the belly and the Colic
as if they frequently knock them down to a fever of my own
Q: 51. Why roman needles abound less amongst wheat than
any other grain?

Q: 52. 38 by some Bees and Birds no sooner come into the
North, than they are able to shift for themselves; whereas
others are not able so to do, for a long time thereafter.

Q: 53. 38 by Earth & Dregs and Glinds for some days after
their birth, whereas the other Creatures are bound, when
Q: 54. 38 by the food of some birds (as the dph st of)

and the blood of some herby eat of Tuffilago of it
appears before their Eyes?

Q: 55. 38 by the dph bird, is Lathest in sending forth its
Larva?

Q: 56. 38 by Spiders will not come nigh to fresh Bees? as
is shewd in the great Hall of Shirling Castle upon the
roofs of which, there is no appearance of any Spiders

Q: 57. Why Sal Chalybid looses its pleasant greenness
and Opaphandity, q^a mixed in a mans pocket, for two
third days?

Q. 58 Why the greatest heat of fire, cannot melt the
superficies of a ponderous body, which containeth water?

Q. 59 Why the Spirit of vitrioll cleaveth the solution
of galls, & vitrioll which is Ineb, being this vitrioll
itself made the solution of Galls, Mark?

Q. 60 If such things as are putrid, will produce also
good thystericks, as those which are solid? and if not,
what is the reason thereof? Concerning the difference
between solid and putrid, Look to page 49.

Q. 61 Why the greatest salt in frost doth no prejudice to
the life of the most part of vegetables, being a little of it
so proportional to the life of plants?

Q. 62 Why all such a burning hand from their infancy
are not spoiled and very short-lived? I know not what
not only this, but also you should see, that the bark
within two inches to his nose, and the beginning of the hand
also.

Q. 63 From the most succulent plants, (as the brusselocks, -
solution of the salt, and the juice, &c.) are sufficiently ali-
mented upon dry walls? being far less succulent & vegetable
than directly decay in good ground, & a very little dring it
which the other persist most succulent.

Q. 64 Why the juices of brussel-locks with so few worms be-
come limpid? being the purest of other vegetables, & have some
more active principles, (as of the spirit, Limon, -
essence, &c.) for effectuating their depuration, by reason
they take a far longer time.

Q. 65 Why the fumes of Coals, Wood, &c. which
are burned in a ordinary, Chimney are condensed into sooty
they are distilled out of a Rectory, they are condensed
the Rectory into phlegms, Spirit, and Ayle?

